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Worldwide Report

ENVIRONMENTAL QUALITY

No. 386



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CONTENTS

ASIA

AUSTRALIA

Drought Hits Crops, Brings Financial Losses, Fires (Various sources, various dates)	1
Drop in Queensland Wheat	
Brushfire Destruction, by Andrew Stone	
Loss in National Income, by Marsali MacKinnon	
Wheat Imports for Victoria	
Irrigation Water Shortage	
Storms Cause \$5 Million in Lost Crops in West Australia (THE WEST AUSTRALIAN, 1 Dec 82)	5
Murrumbidgee River Dry, Victim of Deforestation, Erosion (Patrick Walters; THE SYDNEY MORNING HERALD, 25 Nov 82) .	6
Carnarvon Appoints Ranger To Protect Coastal Environment (Isabelle Cochrane; THE WEST AUSTRALIAN, 25 Nov 82)	7
'Unacceptable' Radiation Found at Sand Mining Sites (Pam Bornhorst; THE AUSTRALIAN, 25 Nov 82)	8
Conservationists Blast EPA Over Harding Dam Handling (THE WEST AUSTRALIAN, various dates)	9
List of Complaints, by Peter Trott	
Government Go-Ahead	

Tasmanian Dam Site Gets Heritage Nod; Government Divided
(Various sources, various dates) 11

Senate Committee Objections, by Simon Balderstone
Tasmanian Premier's Reaction
Liberal, Democratic Positions, by Simon Balderstone
By-Election 'No-Dams' Vote, by Helen Peterson
Cabinet Refusal To Act, by Marsali MacKinnon
Conservationists' Vow To Fight, by Peter Dwyer
'Irresponsible' Government Decision, Editorial
Government Archeologist's Resignation,
by Simon Balderstone
Further Criticism of Government, Editorial
Threat to Heritage Convention, by Richard Guilliatt
World Heritage Committee Action, by Simon Balderstone

Plan for Resort in Rainforest, Historic Area Resisted
(Andrew Stone; THE SYDNEY MORNING HERALD, 8 Dec 82) 20

Minister Overrules EPA Decision on River Pollution
(Rosslyn Beeby; THE AGE, 6 Dec 82) 21

Park Access Proposal Recognizes Concerns of Farmers
(THE COURIER-MAIL, 25 Nov 82) 22

Planning Body Calls for Change in Parkland Program
(Andrew Stone; THE SYDNEY MORNING HERALD, 27 Nov 82) 23

Brisbane Council Voices Objections to Moreton Mining
(THE COURIER-MAIL, 25 Nov 82) 26

Briefs

Salinity Study 27
Murray River Salination 27
Toxic Waste Ship 27

THAILAND

Emergency Fund Established for Fish Farmers Hit by Poisoning
(BANGKOK POST, 12 Jan 83) 29

Paraquat Used as Herbicide
(BANGKOK POST, 12 Jan 83) 30

UN Agency To Help in Determining Toxicity of Herbicides
(BANGKOK POST, 12 Jan 83) 31

NEAR EAST/SOUTH ASIA

LIBYA

Libya Joins Green Belt Project
(JAMAHIRIYA REVIEW, Oct 82) 32

SUB-SAHARAN AFRICA

LESOTHO

Water Technicians Vital, Says Minister Tlelase (K. Kotsokoane; LESOTHO WEEKLY, 7 Jan 83)	33
Projects to Dam Rivers Advocated (Editorial; LESOTHO WEEKLY, 7 Jan 83)	34
Briefs	
Task Force Teams	35

NIGERIA

Oil Spillage Causes Abandonment of Four Towns (Simon Ebare; DAILY TIMES, 6 Jan 83)	36
---	----

SOUTH AFRICA

Break in Drought Reported, Too Late To Save Crop (THE CITIZEN, various dates)	37
Thunderstorms Forecast	
Fifty Percent Beyond Salvage	

ZIMBABWE

Ministry Plans To Transform Irrigation Reported (Ndaba Nyoni; THE HERALD, 11 Jan 83)	39
Briefs	
Effects of Drought	40
Durban's Water Restrictions	40
Kwazulu Borehole Project	41

USSR

Flood Endangers Leningrad (B. Gerasimov; PRAVDA, 26 Nov 82)	42
Ecological Problems of Industrial Sverdlovsk Discussed (B. Ryabinin, P. Shamanov; SOVETSKAYA ROSSIYA, 18 Dec 82)	43
Regulatory Standards for Control of Oil Pollution Outlined (Ye. Andreyev, et al.; NEFTYANIK, Sep 82)	48
Experimental Ship Designed To Cope With Oil Spills (Ye Zhi; JIANCHUAN ZHISHI, No 11, 1982)	53

Briefs

Earthquake in Tajikistan	59
Moldavian Earthquake	59
Device Detects Ocean Oil Slicks	59

WEST EUROPE

SPAIN

Government Policy Ineffective in Barcelona Air Pollution (Jordi Bordas; LA VANGUARDIA, 4 Jan 83)	60
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Briefs

Catalonian Ecologists Plan Candidacy	63
Pamplona Stiffens Pollution Controls	63

DROUGHT HITS CROPS, BRINGS FINANCIAL LOSSES, FIRES

Drop in Queensland Wheat

Brisbane THE COURIER-MAIL in English 22 Nov 82 p 17

[Text] **QUEENSLAND'S wheat harvest has plummeted to less than half last year's total of 1,500,000 tonnes.**

The State Wheat Board chairman, Mr Don McKechnie, said yesterday this year's total crop was 600,000 tonnes.

"This is a very low figure and it is all due to the drought," he said. "We had expected one million hectares of land to be farmed, but because of little rain only 740,000 ha were planted.

"We are also well below the average yield of 1.25 tonnes a hectare. It is now less than one."

The harvest has been disastrous in three areas — central Queensland, central Darling Downs and the far south-west.

In central Queensland, only 68,000 tonnes of wheat have been harvested, compared with last year's total of 200,000 tonnes.

In the other two areas, conditions have been so bad some farmers were unable to plant any wheat.

"It is now at the stage where many farmers are facing severe financial hardship," Mr McKechnie said.

"Many needed a good crop this year to help catch up with the disastrous harvest of 1980 when only about 420,000 tonnes of wheat were farmed.

"Those farmers will again depend on help from banks and finance companies and whatever drought assistance they can get from the Government."

The picture across the state is not all gloom.

Mr McKechnie said the state's near south-west and central-west areas had fared reasonably well. And depending on rainfall, some areas could pick up with a good summer crop.

He said the state needed about 50 mm of rain "pretty soon."

The Queensland Graingrowers' Association marketing manager, Mr Phil Holmes, said yesterday a record wheat crop in the United States this year would have little effect on Australia's position in the world market.

He said a large portion of the Australian crop would have to be retained to meet the local demand for drought fodder.

The US Agriculture Department announced last week wheat yields had risen to an all-time high of 35.6 bushels an acre, producing the largest wheat crop in US history.

Total 1982 production is estimated at 2800 million bushels.

But the US was not alone, Mr Holmes said. Canada and Europe had also had a record year.

He said the Australian crop had been badly affected by a very poor season, and the total yield was expected to be 9 million tonnes — about 50 percent less than last year.

Brushfire Destruction

Sydney THE SYDNEY MORNING HERALD in English 23 Nov 82 p 11

[Article by Andrew Stone]

[Text]

BRISBANE. — Huge bushfires in Queensland in the past few weeks have swept over 20 per cent of the State. Fires have destroyed 432,000 square kilometres, an area the size of Great Britain.

According to the minister in charge of fire services, Mr Hewitt, Queensland is sitting on a fireball as searing summer temperatures bake the outback without any sign of rain.

Damage to property, crops and livestock from more than 1,000 bushfires runs in hundreds of thousands of dollars. Millions more has been saved by fire crews. The State's 30,000 volunteer firemen from 1,400 bush brigades are on full alert.

At Rockhampton, in Central Queensland, the Army has fought blazes in difficult country near the

Shoalwater Bay Defence Department training area.

Graziers have been warned of major outbreaks as the drought continues to grip much of Central and North Queensland.

State Cabinet has drought-declared 25 per cent of the State, about 600,000 sq km, and more shires are expected to be added to the list.

Mr Hewitt said yesterday that bushfire destruction, coupled with the drought, was a crisis for the whole community.

"People living on rural land close to cities and towns are also in danger," he said. "The situation is crippling the State's rural economy and that means trouble for everyone."

High fire-risk areas included the popular holiday coasts north and south of Brisbane, and the sand islands of Moreton, Fraser and North and South Stradbroke.

Loss in National Income

Canberra THE AUSTRALIAN in English 29 Nov 82 p 22

[Article by Marsali MacKinnon]

[Text]

THE nation faces a \$7500 million loss in national income next year because of the drought, the National Farmers Federation warned yesterday.

The federation's president, Mr Michael Davidson, said about 110,000 farmers were now affected by the drought.

He said it was a disaster which would cut the gross domestic product by 4 per cent in 1982 and 1983.

The drought would cost farmers a direct \$2500 million in lost agricultural production for the period, and the federation had calculated the total loss to the economy at \$7500 million.

This figure was reached by applying a formula under which two dollars generated in the rest of the economy equals one dollar of farm income.

"Last year was itself below average," Mr Davidson said.

"The federation had calculated harvest losses against actual 1982 sowings and compared estimated production with average annual agricultural production," he said.

Mr Davidson, who returned at the weekend from the GATT ministerial meeting in Geneva, said farmers welcomed the Federal Government's drought relief measures.

He urged the Government to adopt the recommendations of the recently released Balderton Report to aid the recovery of the rural sector.

Mr Davidson's comments follow a report by the Bureau of Agricultural Economics that the value of rural production this financial year will fall by 44 per cent due to the drought.

Decline

In net terms the bureau estimated the value of rural products will be \$2307 million.

In its quarterly review of the rural economy the bureau says that in real terms this is a fall of 49 per cent from last year and the lowest since the bureau began forecasts in the mid-1950s.

Rural exports are estimated to fall by 7 per cent in 1982-83, well below the average for the past five years.

"Recent forecasts indicate that growth in total production in 1982-83 is likely to be negligible and possibly even negative," the report said.

"This will tend to dampen growth in domestic demand for some agricultural commodities, such as meat and dairy products.

"The slowdown in the rate of

growth in production occurred in both the farm and non-farm sectors of the economy and could be attributed to a marked weakening in private consumption, private investment and total public final expenditure."

The bureau estimates that the sharp decline can be largely blamed on the worsening drought, which now has more than half of eastern Australia in its grip.

Crop production has been the hardest hit of the rural industries by the drought.

The amount of crops harvested this year is expected to fall by 28 per cent, while livestock production is to fall by only 1 per cent.

Wheat will drop by 45 per cent next year as silos are not refilled after this year's crop.

Wheat Imports for Victoria

Melbourne THE AGE in English 29 Nov 82 p 3

[Text]

The first shipment of wheat to Victoria for 37 years, and the biggest received at an Australian port, arrived at Port Melbourne on Saturday.

The Australian Wheat Board Victorian manager, Mr Robert Cracknell, said that because of the drought Victoria could import more wheat from Canada or America.

The Australian National Line ship Flinders Range brought 25,500 tonnes of wheat, worth about \$4.7 million, from Esperance in Western Australia.

The wheat has been taken to the Sunshine grain terminal and will be processed before being distributed to drought-affected stock.

Damage to Western Australia's record wheat crop could run into

millions of dollars after violent hail storms which lashed areas of the central wheat belt during the weekend.

Thousands of hectares of wheat were flattened by hail, and the Weather Bureau has issued severe storm warnings for other wheat areas.

About 2000 starving sheep are to be taken from the drought-stricken Bathurst area today to graze at the RAAF's central ammunition depot at Kingswood, 50 kilometres west of Sydney.

The first truckloads of sheep are due at the 5000-hectare property today. They will graze on two well grassed buffer zones outside the depot's explosive storage areas, which are normally kept low-grassed by burning.

Irrigation Water Shortage

Canberra THE AUSTRALIAN in English 30 Nov 82 pp 1, 28

[Excerpts] FIVE States are facing a potentially catastrophic drought, with irrigation water in jeopardy in NSW and shortages likely in two capital cities, Melbourne and Hobart.

In NSW, the worst-affected State, it was learned yesterday it is unlikely any irrigation water will be available in rural areas next year--excepting the Murray and Murrumbidgee valleys--unless the drought breaks.

This would put a temporary end to irrigation-dependent crops such as cotton and rice and severely deplete the wheat and grain harvests.

The chief executive of the Livestock and Grain Producers Association, Mr John White, said last night the implications for the economy would be "disastrous, running into thousands of millions of dollars".

In Hobart, Tasmania's water supply problems were described by the chairman of the Rivers and Water Supply Commission, Mr Dennis Schaffner, as the worst in 22 years.

There are water restrictions in the Greater Hobart area, designed to cope with problems at a pumping station on the Derwent River and to conserve water in one of Tasmania's most serious droughts. A State-wide campaign is urging careful use of water.

In Victoria, water restrictions are already in force in 76 towns and will be introduced in Melbourne from midnight tonight.

Large tracts of South Australia and Queensland are also drought-stricken, but the situation remains most severe in NSW. Western Australia is the only State which has escaped the dry.

It was revealed yesterday that NSW's eight main rural water-storage dams are only averaging 21.2 per cent of their potential storage capacity as the drought enters its fifth year (the Water Board officially dates the drought from October 1978).

Allocations

Farmers' and graziers' allocations from rural dams (100 per cent in normal times) now average only 53.7 per cent over the Hume, Burrinjuck, Blowering, Wyangala, Burrendong, Keepit, Copeton and Glenbawn storage areas.

And the Darling River has stopped flowing at Wilcannia, threatening the water supply to the Menindie Lakes storage system which serves Broken Hill.

The 1.36 million megalitre Copeton Dam, situated on the Gwydir River, and of immense importance to cotton-growers in the Moree region, is running at 11 per cent capacity, with allocations cut to just 15 per cent.

The other cotton-serving dam, the Keepit on the Namoi River, has 15 per cent capacity, with allocations at 10 per cent.

CSO: 5000/7534

STORMS CAUSE \$5 MILLION IN LOST CROPS IN WEST AUSTRALIA

Perth THE WEST AUSTRALIAN in English 1 Dec 82 p 5

[Excerpts]

THE Primary Industry Association estimates that this season's storms cost WA farmers \$5 million in lost crops.

It could take another two weeks before a final figure is known—provided there is no more damage—according to PIA deputy director Graham Lawrence.

He said that most growers were covered for hail damage but not for the accompanying rain.

As well, many would hope to salvage some of their production.

"On this basis, we would expect insurance payouts of about \$4 million, based on our estimates," he said.

"The experience has been devastating for those involved. A number of the hailstorms

hit in areas affected by drought in recent years.

Drought

"These farmers, particularly, had been looking for a sound financial return this season to help stabilise their position."

But while individual losses are great in a year that promised so much, the total involved represents only a small part of the State's predicted record grain harvest—expected to be worth \$800m. to \$900m.

WA is still expected to produce well over half Australia's total wheat production from record sowings this year.

Total grain deliveries of more than six million tonnes are still expected, with wheat topping the five-million tonne mark for the first time.

The latest storms have disrupted harvesting for many farmers, even where there has been no damage.

But the rains were too late for further crop disease, according to Dr G. C. MacNish, a senior plant pathologist with the Agriculture Department.

"The main worry is for next season," he said.

"Given normal rainfall, it has the potential to really develop after this year."

"The recent dry years have kept it down."

CSO: 5000/7534

MURRUMBIDGEE RIVER DRY, VICTIM OF DEFORESTATION, EROSION

Sydney THE SYDNEY MORNING HERALD in English 25 Nov 82 p 1

[Article by Patrick Walters]

[Text]

CANBERRA. — Mr H. B. (Jo) Gullett sat on a rock in one of his favourite fishing holes and talked of the stream that has now stopped flowing.

Down near Tharwa, about 20 kilometres south of Canberra, the once great Murrumbidgee, the river the Aborigines called "Big Water," is now just a series of puddles along a broad sandy bed.

"You can truthfully say I'm now in a place where I have caught a lot of fish," Mr Gullett said.

"This is a very good trout hole and usually as clear as gin at this time of year."

The Murrumbidgee has only ever stopped flowing once before this century, and then in the autumn months after a hot dry summer.

Every spring at Tharwa there is usually a rise of a metre or more in the river, but there has been none this year.

In a lifetime spent beside the river, Mr Gullett has never seen the river as low as it is at present and summer is still to come.

He remembers that when he was a boy the Murrumbidgee was a narrower stream and, was

generally deeper and stonier than it is today.

In the 40s and 50s there were big floods when the Murrumbidgee ran to 10 metres and broke its banks and the Gulletts were stranded at their property, Lambrigg, unable to cross swollen creeks by car. Creeks that were permanent 50 years ago now run only rarely.

Mr Gullett says that clearing of forest, massive erosion upstream, and the Snowy Mountains hydro-electric scheme have all contributed to the changing Murrumbidgee.

Looking at what remains of the stream today it's hard to believe that in 1922 the Murrumbidgee waters lapped the decking of the Tharwa bridge several kilometres upstream from Lambrigg.

Further downstream at Burrijuck Dam, the past eight months have been the driest since records were kept.

At present rates Burrijuck, which supplies the Murrumbidgee Irrigation Area, will be virtually empty by next May.

The dam is about 30 per cent full and the Water Resources Commission is still sending out 4,000 megalitres a day to keep the Murrumbidgee flowing downstream.

CSO: 5000/7533

CARNARVON APPOINTS RANGER TO PROTECT COASTAL ENVIRONMENT

Perth THE WEST AUSTRALIAN in English 25 Nov 82 News of the North p 4

[Article by Isabelle Cochrane]

[Text]

C A R N A R V O N
Shire Council has appointed a coastal ranger at a salary of \$20,000 per year.

This amount was included in the 1982/83 budget because the council considered it essential for a ranger to patrol the long coastline of the shire.

The coastal environment is under continual threat from human contact with off-road vehicles, illegal camping, feral animals, fires and vandalism.

The council had to go it alone because requests for assistance in funding from Government sources resulted in nothing.

The Shire of Carnarvon has no coastal national park. Kalbarri to the south is in Northampton shire and Cape Range National Park to the north is in Exmouth shire.

The Minister for Conservation and Environment Mr Lawrence suggested that one way to raise revenue was for the council to control camping outside caravan parks.

One of the principal areas the ranger would patrol is Gladstone, about 140km south of Carnarvon, just north of the 20th parallel and within the protection of the south end of Shark Bay.

The Gladstone jetty was used as a moorage for lighters in the early days of settlement. The wood storage shed, which in latter years had sheltered many holiday makers from sun and wind, was burnt to the ground recently.

Though the beach has little to offer, the waters are popular fishing grounds.

There has been an "honesty box" for contributions and an employee of nearby Yaringa station has been acting as a ranger.

CSO: 5000/7533

'UNACCEPTABLE' RADIATION FOUND AT SAND MINING SITES

Canberra THE AUSTRALIAN in English 25 Nov 82 p 3

[Article by Pam Bornhorst]

[Text] A PRELIMINARY survey by the NSW Health Commission has identified unacceptably high levels of radiation at "more than a dozen" old sand mining sites along the north coast between Taree and the Queensland border.

But according to government officials the radioactivity poses "no immediate hazard to public health".

Most of the sites are located in isolated areas well away from homes although "a few" are in built-up areas.

The survey was conducted by officers of the Health Commission with assistance from the Sand Miners Association and local authorities.

'Borderline'

It was ordered by the State Health Minister, Mr Brereton, some months ago after high levels of radiation were discovered at Byron Bay.

The contamination there was caused by concentrations of the naturally radioactive mineral, monazite, which was in waste dumped during sand

mining operations between 1934 and 1975.

Radiation experts have since ordered the removal of the radioactive soil - much of which lies under houses and other buildings in the town.

The senior Health Commission official who supervised the preliminary survey, Mr Lindsay Beattie of Lismore, confirmed yesterday that the results of the survey had not been released publicly. He said the commission did not want to frighten people unnecessarily.

When asked about the "few" sites identified in built-up areas, Mr Beattie replied: "These are borderline cases. In fact when further tests are carried out we may well discover that they are below the acceptable action level set by the Radiological Advisory Council. So I don't want to make too much of it at this stage. In any case these sites involve commercial or industrial buildings, not homes like in Byron Bay."

Mr Beattie declined to say where the excessive levels of

radiation had been recorded or exactly how many sites were involved, although he indicated it was more than a dozen.

He emphasised that the survey was only preliminary.

A spokesman for the Health Minister said scientists were now conducting detailed tests at a number of sites, including an old plant used to process mineral sands two kilometres from Crescent Head Beach near Kempsey on the mid-north coast.

An analysis of soil samples from the plant site had revealed high levels of radioactivity. The reading - 2.5 to 3 millirems per hour - was well above the internationally accepted level of 0.1 millirems and about six times higher than that found at Byron Bay.

He said the Health Commission had asked the company, Mineral Deposits (Newcastle) Pty Ltd, to clean up the radioactive material which has spilled out through an old wire fence near the derelict plant.

CSO: 5000/7532

CONSERVATIONISTS BLAST EPA OVER HARDING DAM HANDLING

List of Complaints

Perth THE WEST AUSTRALIAN in English 25 Nov 82 News of the North p 12

[Article by Peter Trott]

[Text]

THE FAILURE of the Environmental Protection Authority to respond to a letter querying its report on the proposed Harding River Dam has been strongly criticised by the WA Conservation Council.

The letter, dated October 12 and addressed to the chairman of the EPA, Professor A. R. Main, raised 11 issues which the Conservation Council believed had not been adequately covered in the EPA report which was released in August this year.

It said the EPA should show it had conscientiously assessed the environmental impact of the proposed dam development by providing a supplementary report covering:

- The soundness of the Public Works Department's optimistic approach in assessing the likely performance of the Harding Dam, particularly in the effect on the Millstream aquifer of an 11-year drought as occurred 1917-1927 and for the worst drought in a 1000-year period as calculated for the PWD by the Snowy Mountains Engineering Corporation.

- The very inadequate cost estimates

"for the different" options.

- Government estimates of the cost of other options suggested by the council but not covered by the PWD.

- Presentation of the proposed dam's storage performance for the whole historic period 1977 to 1980 instead of the more favourable period of 1955 to 1970 as used by the PWD.

- The potential for major algae growth in the shallows.

- Survey information of other possible sites in the upper Kuman Creek, Upper Robe River and Callinigina Creek areas, which in contrast to Harding, can be used to directly recharge the Millstream aquifer.

- The EPA's attitude to the impact on Aboriginal communities in the area.

"The EPA's silence is alarming," a spokesman for the Conservation Council said in a written statement last week, "particularly in

regard to the Conservation Council's proposal that an alternative dam should be constructed in the Hamersley Range in the West Pilbara.

"It is proposed that water from such a dam should be gravity fed to directly recharge the unique Millstream aquifer.

"This method of operation is highlighted by the successful Ophthalmia Dam recently developed at Newman by Mt Newman Mining.

"This dam has supplied the aquifer with 13.5 million kilolitres, which is more than the annual consumption in the West Pilbara this year."

The statement said the proposed use of the Harding Dam to recharge the Millstream would be inefficient and costly.

"Furthermore, in view of the lengthy and severe droughts in the West Pilbara and the high evaporation losses from such a dam, the development cannot be the long-term solution

to maintaining Millstream and guaranteeing the survival of its unique ecosystems," the statement said.

"Bearing in mind that \$50 million of public monies are involved in the Harding Dam project and that the EPA has chosen to restrict its evaluation of water supply options for the West Pilbara, the council is now referring the matter to the appropriate Commonwealth authorities.

"The Snowy Mountains Engineering Corporation and Mt Newman Mining Company are also being contacted."

The spokesman said the dam should go ahead only when the questions raised in the council's open letter to Professor Main were answered.

Otherwise the public

might have to meet additional and unnecessary costs arising from "an expensive project which is yet to be adequately justified."

"As it is clear that the State Government is unwilling to adequately assess the project, the conservation council now looks to the Commonwealth to accept its responsibility in respect of both the national estate and as the guardians of the public purse," the statement concluded.

In spite of the council's criticism of the project and recent moves by Aborigines traditionally connected with the area to stay proceedings until it can be established whether the requirements of the Aboriginal Heritage Act have been met, preliminary site works have begun and it has been an-

nounced that the Minister for Works, Mr Mensaros, will hold a "start of project" celebration on the site in February next year.

In fact in its letter of October the conservation council suggests that the EPA's standing was reduced by its report and recommendations being pre-empted by the Minister for Conservation and the Environment, Mr Laurance, who had declared a month earlier that the dam would go ahead.

"It would appear that the EPA, which was established as an independent authority to act as a watchdog for the public and as an advisor to the government, has lost much of its independence and authority," the council's president, Mr Peter Akerman, said.

Government Go-Ahead

Perth THE WEST AUSTRALIAN in English 7 Dec 82 p 1

[Excerpt] THE WA Government has decided to go ahead with the Harding River dam, but a downstream pipeline is expected to be diverted to avoid an Aboriginal burial and camping ground.

Aboriginal communities will, under certain conditions, be allowed access to sacred sites and traditional hunting and camping grounds in the catchment area, including the Chichester Range National Park.

The conditions will be set after consultation between various government bodies and the Aborigines.

The Premier, Mr O'Conner, announced the decision yesterday after Aborigines had accused the Government last month of breaching the Aboriginal Heritage Act by allowing the \$50 million dam project to go ahead.

CSO: 5000/7533

TASMANIAN DAM SITE GETS HERITAGE NOD; GOVERNMENT DIVIDED

Senate Committee Objections

Melbourne THE AGE in English 24 Nov 82 p 3

[Article by Simon Balderstone]

[Excerpt]

CANBERRA. — There is no economic justification to proceed with the Gordon-below-Franklin dam for at least three years, if ever, an all-party parliamentary inquiry has found.

The Senate select committee on south-west Tasmania found that power demand forecasts by the Tasmanian Hydro-Electric Commission were probably overestimates, and it was undesirable to start a big power project such as the dam, which had little or no flexibility, and would tie up "expensive capital."

Although the chairman of the committee, Senator Archer (Lib., Tas.), issued a dissenting report on almost all of the energy supply strategy matters, he did not disagree with the committee conclusion that "Apart from any other reasons for preserving the area, archaeological discoveries near the Franklin River are of such international importance that they should not be inundated . . . the Commonwealth Government should proceed with the World Heritage Listings of the area and should fulfil its obligations and responsibilities under the UNESCO heritage convention."

Senator Archer said he did not know what the Government's Heritage listing of the area and another Liberal committee member, Senator Hill (SA), said the convention set out an obligation to preserve the area and means by which that could and should be achieved.

The report says legislation exists under which the Commonwealth could act to save the area, and that there is a strong argument that the Commonwealth is

obliged to act. "It has a considerable number of powers and options open to it to enable it to meet that responsibility," says the report.

It says the flooding of Fraser Cave and other caves along the Franklin River would be disastrous. "Australia's world reputation would be badly tarnished if such significant (archaeological) discoveries were to be lost," it says.

The committee — established in September last year — drew up a supply strategy involving construction of one or more small hydro-electric schemes which, it said, apart from providing insurance against a shortfall in supply by a sudden and unexpected increase in demand, would alleviate some of the employment problems within the HEC if the Gordon-below-Franklin scheme were abandoned.

It also wants further investigation in obtaining power from Victoria, exchange of power between Tasmania and Victoria on an opportunity basis, and sharing of reserve capacity.

It wants more investigation of

thermal power, a detailed evaluation of Tasmanian coal reserves, and planning for several minor options which, if required, could be commenced quickly.

The committee is made up of Liberal senators Archer (Tas.), Missen (Vic.) and Hill (SA); Labor senators Coates (Tas.) and Primer (Vic.), and the Democrat leader, Senator Chipp.

Tasmanian Premier's Reaction

Sydney THE SYDNEY MORNING HERALD in English 25 Nov 82 p 9

[Text]

HOBART. — The Tasmanian Premier, Mr Gray, yesterday strengthened his resolve to build the Gordon-below-Franklin dam despite the recommendations of the Senate select committee inquiry into South-West Tasmania.

The select committee recommended that there was no need for the dam on environmental and economic grounds.

Mr Gray labelled the report as "shocking."

Mr Gray issued another warning to the Prime Minister, Mr Fraser, against intervening on the issue.

"He will have a massive State rights fight on his hands if he starts that one," he said.

The chairman of the committee, Senator Brian Archer (Lib, Tas) dissented from the majority viewpoint on the dam.

Mr Gray named three Senators — Don Chipp (Dem, Vic) John Coates (Lab, Tas) and Cyril Primer (Lab, Vic) — as being "committed conservationists, biased from the start."

He accused five of the six senators on the committee of being biased.

Mr Gray told a Liberal Party breakfast in Hobart that the scheme would go ahead. He said the Tasmanian Parliament had a mandate from the people to retain control of the South West as a resource which could be used for the future.

He had not been offered compensation to protect the area, but if he was, "no amount of money, even billions of dollars, would make me forgo the dam."

"The dam is proceeding and will proceed despite any efforts by conservationists, the Senate, or anyone else," he said.

"Tasmanians have made the decision and the dam will be built."

Mr Gray is sending the Deputy Premier, Mr Max Bingham, and an advisor to Paris next month to put the State's case against listing the south-west on the World Heritage List.

"It's important that the World Heritage committee know our case before they consider this matter," Mr Gray said.

He said Tasmania had the right to make its own decisions.

"Even if the south-west is listed on the World Heritage list, that dam will be constructed, and some time in the future the Government may decide to expand mining operations or forestry operations in that area," he said.

Last night Mr Gray said he was not concerned about strained relationships between Tasmania and the Commonwealth.

"My job is to look after the interests of Tasmania and Tasmanians and that is what I am doing," he said.

The Queensland Premier, Mr Bjelke-Petersen said yesterday he had advised Mr Gray to tell the Senate committee "to jump in the lake."

"I told Robin I wouldn't even waste a wink of sleep over them," Mr Bjelke-Petersen said on ABC radio.

The Australian Democrats will press today for the immediate passage through the Senate of their private members bill which would stop the Gordon-below-Franklin dam.

The World Heritage Properties Protection Bill will give legal force to Australia's commitment to preserve areas nominated for the World Heritage List.

It is expected that the bill will pass the Senate today with the support of several Liberal senators.

Liberal, Democratic Positions

Melbourne THE AGE in English 26 Nov 82 p 5

[Article by Simon Balderstone]

[Excerpt]

CANBERRA. — A letter from the Young Liberal Movement to all Federal Liberal MPs stressing the political gains to be made by acting to save the south-west Tasmanian wilderness has increased the pressure on the Government.

And in the Senate, a Democrat bill forbidding a person to damage a World Heritage area seems likely to be passed with the support of the ALP and at least one Liberal senator.

In another significant move yesterday, the Minister representing the Minister for Home Affairs and the Environment in the Senate, Senator Baume, told the Upper House that the Commonwealth had the power to intervene to protect south-west Tasmania from hydro-electric power development.

Speaking against the Democrat bill, Senator Baume said its need was doubtful, as legislation already existed giving the Federal Government the power to protect areas nominated for the World Heritage List.

The Democrat bill makes it unlawful to affect adversely any area nominated for, or included on, the World Heritage List.

By-Election 'No-Dams' Vote

Canberra THE AUSTRALIAN in English 6 Dec 82 p 1

[Article by Helen Peterson]

[Excerpts]

FOUR out of every 10 voters in the Flinders by-election wrote "no dams" on their ballot papers — the highest "no dams" vote recorded in any Australian election.

This indication of public opposition to the Tasmanian Government's controversial plan to dam the Franklin River in the State's southwest wilderness comes on the eve of a Federal Government

Cabinet meeting which is expected to decide to intervene.

The "no dams" vote in Flinders was 40.4 per cent and reached up to 60 per cent in some booths.

The "no dams" vote in the Flinders by-election contributed to the ALP's defeat and was a warning to the Federal Government, Tasmanian Wilderness Society Director, Dr Bob Brown, claimed yesterday.

Cabinet Refusal To Act

Canberra THE AUSTRALIAN in English 9 Dec 82 pp 1, 20

[Article by Marsali MacKinnon]

[Text] THE Federal Government has ruled out action to stop the Tasmanian Government from building the controversial Franklin dam.

But this decision has opened up a bitter dispute among members of the Liberal Party's own backbench.

The Government made the decision despite legal advice that it has the constitutional power to block the project.

Environmentalists and conservationists reacted angrily to the news, although their feelings were tempered by a promise that important archaeological finds threatened by the dam's floodwaters would be preserved.

When the decision against intervention was announced to the Government party room meeting yesterday, Senator Alan Missen (Lib, Vic) described it as "the worst the Government has taken since it came to office in 1975".

A number of other Liberal MPs also said they opposed the project and support was being canvassed for an Australian Democrats' bill to stop the dam.

The bill, which was discussed in the Senate last night, is expected to be passed but it is not known when it will reach the House of Representatives.

Backbench attempts to defer a decision on the dam until the Prime Minister, Mr Fraser, returns to work founded at yesterday's party room meeting when the Acting Prime Minister, Mr Anthony, revealed that Mr Fraser had been fully involved in the Cabinet talks on the subject.

It is believed that the Minister for Home Affairs and the Environment, Mr McVeigh, was upset about the decision and that he was defeated in Cabinet on the issue.

Outside Parliament he said that although the Government had received a number of legal opinions, including one from the Attorney-General's Department, that it had the constitutional power to stop the dam, "the Government believes that States' rights have to be balanced

against this".

"The legal opinions also stated that a compromise should be reached," he said.

Earlier, Mr McVeigh told MPs: "The Government has to face facts. The Premier of Tasmania has stated firmly and with the backing of legislation that the proposed dam is to proceed."

He said the Government's submission to the World Heritage Commission to have south-west Tasmania's wilderness placed on the World Heritage List would go ahead.

But the Government had told the commission "that the Tasmanian Government is constructing a hydro-electric power scheme in the nominated area and that the Commonwealth has been and is discussing the scheme with the Tasmanian Government with a view to minimising the damage that the dam might cause".

"The Government does not intend to intervene in the construction of the dam," Mr McVeigh said.

"The expressions of concern have been clear and widespread. Nevertheless, the Government has to strike a balance between competing intentions," he said.

"Confrontation between the Commonwealth and the States and between individuals in the community is not the road to prosperity, development or the conservation of our heritage."

"The Government believes, on balance, that its decision is the right one and seeks from the community support in its continuing discussions with the Tasmanian Government."

He also appealed to those members of environmental groups planning to blockade the dam site next week not to force a violent confrontation with police.

"I abhor violence ... nothing can be gained from violent confrontation," he said.

He promised that the Government would stand by its commitment to give cash and other help to establish and run a national park in south-west Tasmania.

Later, outside Parliament, he said the flooded area would take up 15 per cent of the total area proposed for a national park, but archaeological areas like the Fraser caves, where some of the earliest signs of human habitation have been found, would be preserved.

The walls of the caves would be coated with protective material and cut out of the ground to be removed to higher, dry ground, he said.

The Minister for the Capital Territory, Mr Hodgman, who represents the Tasmanian seat of Denison, described the Government's action as "a great decision for Tasmania and a great decision for federalism".

Mr Hodgman had threatened to resign his portfolio if the Government intervened.

But the leader of the Australian Democrats, Senator Don Chipp, described the decision as "a disgrace".

"This action is being taken even after the all-party Senate committee of inquiry found that the dam was not necessary for Tasmania's future employment or energy needs for at least three years, if at all," he said.

"We will be pressing ahead today with our World Heritage (Properties Protection) Bill designed to save the Franklin.

"Every member of the two Houses of Parliament will have to stand up and be counted."

The Opposition spokesman on conservation, Mr Stewart West, accused the Government of cowardice and deception in delaying the decision until after last weekend's Flinders by-election.

The Australian Heritage Commission and the Australian Conservation Foundation both criticised the Government's decision.

The commission's chairman, Mr Kenneth Wiltshire, said "prudent and feasible" alternatives for energy for Tasmania existed and had been canvassed in the recent Senate committee report.

The foundation's director, Dr Geoffrey Mosley, called the decision "shameful and cowardly".

Conservationists' Vow to Fight

Canberra THE AUSTRALIAN in English 9 Dec 82 p 1

[Article by Peter Dwyer]

[Text]

THE conservation movement has vowed to fight the Federal Government over its go-ahead for the Franklin dam.

The director of the Tasmanian Wilderness Society, Dr Bob Brown, said the Government had made a serious mistake.

He warned that the decision would cost the Government seats in all parts of the country and certainly one Senate seat in Tasmania.

The Premier of Tasmania, Mr Gray, said the decision was a victory for common sense and a recognition of the State's sovereign rights.

But Dr Brown said it would bring international condemnation on Australia which had nominated the area for the World Heritage List.

He said: "This decision is a transparent piece of political

expediency. We will continue to press ahead to do all that we peacefully can to stop this and I believe this dam will never be built.

"We will continue to rouse this campaign internationally and nationally until wiser counsel prevails."

Dr Brown foreshadowed court challenges to stop any Federal Government decision which was required to allow Tasmania to buy overseas equipment for the dam.

There would also be challenges to any decision by the Government to provide funds which would be used on the dam's construction.

Mr Gray said last night he was delighted the World Heritage nomination, which will be considered on Monday, was not being withdrawn.

'Irresponsible' Government Decision

Canberra THE AUSTRALIAN in English 9 Dec 82 p 8

[Editorial]

[Text]

THE Federal Government may as well refer the Franklin River dam question directly to the World Heritage Commission for all the meaning its decision has.

The Government will not stop Tasmania building the dam, but it will apply to the commission to preserve the area as well.

This extraordinary non-decision has already threatened to split the Government's ranks, as if it did not have enough troubles on its plate.

The compromise is cowardly. Nebulous nonsense about State rights is irrelevant.

This is not a question of State rights at all. The Government's own legal

advice says that it has the power to intervene. Under our treaty obligations to the Commission, it can even be argued that it has a duty to intervene.

But *The Australian* is not, at this time, concerned with whether the dam is right or wrong. Whether or not it would be good, or bad, for Australia.

What worries us is the Government's apparent eagerness to abandon its responsibilities.

It is hard to make any sense of its decision. But since it has chosen, apparently, to make two other bodies arbiters of the national interest, it should now brace itself for the whirlwind.

Government Archeologist's Resignation

Melbourne THE AGE in English 10 Dec 82 pp 1, 3

[Article by Simon Balderstone]

[Excerpt]

CANBERRA. — One of Australia's leading archaeologists has resigned from a Federal Government position protesting that Government claims about preserving archaeological sites from flooding in Tasmania's south-west are a travesty.

Professor John Mulvaney, of the Australian National University, resigned yesterday from the interim council of the Museum of Australia. He said that in light of the Government decision not to intervene over the Ord-Below-Franklin dam in south-west Tasmania and its attitude to Australia's heritage, he could not in all conscience serve it any longer.

Parliamentary opposition to the government's decision continued to mount yesterday with the Senate preparing to pass a Democrat Bill to protect World Heritage areas, and a protest against the decision from the Government's own back bench.

Further Criticism of Government

Melbourne THE AGE in English 10 Dec 82 p 13

[Editorial]

[Text]

MISTER ANTHONY was wrong to describe Federal Cabinet's decisions on south-west Tasmania on Wednesday as a compromise. For some months his Government had been trying to win a genuine compromise to give Tasmania a new power scheme while saving its beautiful river gorges from inundation. The attitude of the Tasmanian Liberal Government, however, made compromise impossible. And the Federal Government was left with two choices — either to overrule its ally and legislate unilaterally to preserve the rivers, or to cave in and allow the dam to go ahead to avoid an embarrassing confrontation with its Tasmanian branch.

It chose to cave in. As the contrasting reactions of Mr Gray and the Tasmanian Wilderness Society demonstrated, the decision

to allow the dam to go ahead was the vital one, and on this the Fraser Government had given up the fight. This despite confirmation that it possessed the powers to act, despite the Prime Minister's fine words in the past about the importance of saving the best of our environmental heritage, despite the evidence of massive support for Federal action by the electors of Flinders.

The Government will have a hard time explaining its reasons to the World Heritage Committee on Monday when it asks them to put the south-west wilderness on the World Heritage List. It is ridiculous to call an area a wilderness when it has a huge man-made dam and power station in the middle of it, drowning all the river valleys for 35 to 40 kilometres upstream, and leaving the area crisscrossed with wide roads, a transmission line and a construction camp. South-west Tasmania in its present state deserves a place on the World Heritage List; but its value to the world would be greatly reduced after such

a huge transformation by man. The committee may well ask itself what sort of trustee would allow the gems of his area to be thus carved away, contenting himself with the thought that at least the other 98 per cent has not been taken.

The Fraser Government will also have a hard time explaining its backdown to the Australian voters. Until now it has intervened strongly to protect our natural heritage, overruling the Queensland Government to preserve Fraser Island and the Barrier Reef, and closing down the whaling industry. The dams issue is no less important than these. Has the Government really met its match in the Gray Government? Its retreat now leaves it isolated on the wrong side of a most potent issue. The no-dams campaign obviously will now swing behind the Labor Party in marginal House of Representatives seats, and behind the Democrats in the Senate. The Fraser Government has allowed the Gray Government to bulldoze its principles; but it is not clear what it is going to get out of doing so.

[Editor's Note: On page 12, immediately preceding the above editorial, THE AGE of 10 December 1982 carried a quarter of a page of boxed letters from readers prefaced as follows: "The Federal Government's decision not to oppose the damming of the Gordon River in Tasmania has provoked an angry response from readers. Particularly upset are those who feel they were misled by Liberal Party promises during the Flinders by-election campaign."]

Threat to Heritage Convention

Melbourne THE AGE in English 11 Dec 82 p 1

[Article by Richard Guillatt]

[Text] The Federal Government might have a legal duty to stop the proposed damming of the Gordon-below-Frankling River, according to a section of the Victorian Law Institute.

The chairman of the environmental law section of the institute Mr Simon Molesworth, said yesterday that if the Federal Government failed to uphold its obligations under the World Heritage Convention, the whole legal status and effectiveness of the convention could be in doubt.

Mr Molesworth said some legal opinions studied by the environmental law section indicated that, in order to uphold the law, the Government actually had a duty to pass legislation putting the convention into effect.

Legal opinion also indicated that this duty could exist even if the south-west area was not registered on the World Heritage List, but simply nominated. Mr Molesworth said although it was unusual for him to comment on such an issue, the question of the Federal Government's legal power and duty was a fundamental issue.

"The area now under threat is a part of our national heritage which is of the greatest significance," Mr Molesworth said.

"This area was given recognition for its outstanding natural features, even before the recent archaeological finds established the important cultural significance of the area.

"If the Federal Government is not prepared to uphold international agreements to which it is a signatory, the whole legal status and effectiveness of such conventions is cast in doubt."

But the Law Institute later distanced itself from Mr Molesworth's statement. The executive director, Mr Gordon Lewis, said environmental law would not be considered by the institute's council until next week.

The Tasmanian Wilderness Society said yesterday it would block river transport, dam-works and jetty construction by the Hydro-Electric Commission as part of its blockade of the project.

Ms Pam Waud, speaking for the society, said works at the dam site would be obstructed by protestors from Tuesday. The Franklin River would be blocked to stop river transport, and protesters would try to stop construction of a jetty at Warners Landing, which is being prepared for bulldozer access.

There are now 80 "blockaders" in the town of Strahan, with organisers hoping another 400 will arrive over the weekend.

World Heritage Committee Action

Melbourne THE AGE in English 15 Dec 82 p 1

[Article by Simon Balderstone]

[Text] **CANBERRA.** — The World Heritage Committee, meeting in Paris last night, added the Tasmanian South West West wilderness area to the World Heritage list — but the Tasmanian Government appeared ready to challenge the listing and to develop more industries in the region.

The International committee expressed concern at the proposed building of the Gordon-below-Franklin dam and said the Australian Government should take all measures to protect the integrity of the area.

It said Australia should consider putting it on the World Heritage Convention endangered areas list.

The committee accepted the Federal Government's nomination of the area after a tough discussion during which the Australian delegation was asked several questions by delegates. It listed the area without qualification.

The Deputy Premier of Tasmania, Mr Bingham, said in Paris yesterday that Tasmania wanted sovereign rights over the region. He said the matter might have to be thrashed out in court "due to the failure to come to a proper agreement at this stage."

There are only two other temperate wilderness regions in the world — one in Chile, the other in New Zealand.

The Paris committee said the Franklin dam would destroy a number of cultural areas.

The decision and that further comment, puts more pressure on

the Federal Government to negotiate an alternative scheme with the Tasmanian Government.

In other developments yesterday:

Four Government Senators crossed the floor to vote with the ALP and Democrats to pass (31-23) a bill making it an offence to damage any area nominated for, or included in, the World Heritage List.

About 20 Government backbenchers, nearly all of them anti-dam, met the Acting Prime Minister, Mr Anthony, and the Minister for Home Affairs and Environment, Mr McVeigh, to discuss the issue.

* An opinion poll by the Tasmanian opinion Poll Company found that on 4 December, as many Tasmanians would have accepted generous Federal compensation for an alternative power scheme as would have rejected it.

* The Federal Opposition launched an urgency debate in the House of Representatives to protest at "the failure of the Government to honor its national and international obligation to protect the Franklin River in South-West Tasmania, and its failure to offer Tasmania assistance to stimulate alternative employment."

* A rally of about 1500 people was held outside Parliament House to protest at the Federal Government's failure to intervene. The rally was addressed by the Democrat Leader, Senator Chipp, the Opposition Environment Spokesman, Mr West and archaeologist, professor John Mulvaney, poet Judith Wright, and Victorian Liberal Senator Alan Misson, who told the crowd that the Government's stand was "deplorable" and that sometimes "repressive laws" had to be broken for the greater good.

The Leader of the Opposition in the Upper House, Senator John Button, visited Strachan in South-West Tasmania, and called on the Tasmanian Wilderness Society and the Australian Conservation Foundation to back an alternative power scheme. He said the ALP was opposed to the construction of the Gordon-below-Franklin Dam, but was not opposed to hydro-electric development in Tasmania.

CSO: 5000/7532

PLAN FOR RESORT IN RAINFOREST, HISTORIC AREA RESISTED

Sydney THE SYDNEY MORNING HERALD in English 8 Dec 82 p 12

[Article by Andrew Stone]

[Text] BRISBANE. — A Sydney company's plans for a \$92 million tourist resort on a north Queensland rainforest reserve have run into fierce opposition from local landholders and conservation groups.

The developers, Butler Pollnow Pty Ltd, want to build a big resort hotel, 180 beach and hillside villas, 60 luxurious apartments and a marina and golf course on the 320-hectare Kennedy Reserve. Freehold title to the public land at no cost is being sought from the Queensland Government to encourage land sales to fund the project.

The coastal beach, scrub, rainforest and swampy reserve near Tully is in Australia's wettest region. The Great Barrier Reef resort Dunk Island lies just offshore.

The reserve is a historic site. The explorer Edmund Kennedy stepped ashore to begin his disastrous trek to Cape York in 1848. Kennedy and eight others in his party died on the trail.

Opponents of the plan say the reserve is one of Australia's few historic sites left in its natural state. They say development would wipe out the rainforest and destroy a breeding area of Torres Strait pigeons and cockatoos.

Sue Smith, secretary of the Wildlife Preservation Society at Tully, said: "We don't oppose development, but we've had a few projects up here which just

haven't given us what has been promised. People are wary of coastal schemes."

"The idea of handing over public land is wrong and more so when it's an important historical and natural area."

Backers of the project, known as the Tann O'Shaaster Destination Resort, have an outspoken ally in the chairman of Cardwell Shire Council, Mr Tipperary Byrne. The council could earn up to \$500,000 a year in rates from the resort.

Mr Byrne compares the Kennedy Bay scheme to the controversial Iwasaki project at Yeppoon in central Queensland. "This development will make Iwasaki look like a novice," Mr Byrne said.

"What do you need more — an area that no one goes to or one that can provide 3,000 jobs for local people in the next 10 years? Anyone opposed to it, including the greens, must have rocks in their head."

Mr Joe Galeano, a Tully cane farmer, has organised a petition opposing the project. He said: "I went there as a kid with my parents. I take my children there and I want them to take their kids along so they can see what Kennedy found. If this goes ahead, they'll have no idea what Australia was like when Europeans arrived."

But Mr Errol Pollnow, a partner in the development group, said the company plans to preserve the best features of the reserve, including rainforest and nesting areas, at every step of the plan.

"If we get an opportunity to do this we would feel very disappointed if conservation groups were not happy with the outcome," he said. Much criticism was misguided and wrong.

CSO: 5000/7535

MINISTER OVERRULES EPA DECISION ON RIVER POLLUTION

Melbourne THE AGE in English 6 Dec 82 p 3

[Article by Rosslyn Beeby]

[Text]

The Minister for Conservation, Mr Walker, has set aside an Environment Protection Appeal Board decision on pollution of the Wimmera River by sewage effluent.

Mr Walker said the board's decision that effluent from the Horsham Sewerage Authority cease to be discharged to the river was unrealistic and impractical.

He said he had directed the EPA to prepare a State environment protection policy on the river to define beneficial uses and to determine the level of protection for the environment.

Mr Walker's intervention sets aside a finding by the board in July this year that the Horsham Sewerage Authority stop discharging treated effluent into the river by 31 December 1983.

The board met earlier this year to consider concurrent appeals by the Horsham Sewerage Authority and Dimboola Shire Council. The authority claimed licence conditions imposed by the EPA for effluent discharge to the river were too strict. Dimboola shire claimed the licence conditions were not strict enough.

The hearing lasted 25 days, involved more than 30 witnesses and was the biggest river pollution case in Victoria. Costs

shared by both parties were estimated at \$250,000.

After the board's nil discharge decision, the Horsham authority lodged a Supreme Court appeal, claiming the board had acted outside its authority. Mr Walker said the authority had now agreed to withdraw its challenge to the board's decision.

Mr Walker said preparation of a State environment protection policy was an attempt to remake the Appeal Board decision to allow a controlled amount of effluent to be discharged to the river under strict conditions. A draft policy would be issued in mid-1983 and the public would be given three months to comment, he said.

Mr Walker said the board's decision was impractical because the board was not empowered to consider economic factors in its finding, including the cost of alternative means of disposal and the high cost of complying with the decision. The Horsham Sewerage Authority estimated it would cost \$3.5 million to comply with the nil discharge requirement.

In its final decision earlier this year, the board found that effluent had caused serious pollution during periods of low flow in the river. Symptoms of pollution included extensive weed growth, high water temperatures, discolouration and offensive odors.

CSO: 5000/7535

PARK ACCESS PROPOSAL RECOGNIZES CONCERNS OF FARMERS

Brisbane THE COURIER-MAIL in English 25 Nov 82 p 18

[Text] **NATURE** lovers would benefit from the resumption of farming land to allow public access to environmental reserves, it was claimed yesterday.

An Australian Institute of Urban Studies committee member, Mr Phil Day, said however that only a small strip of land, not the total, would be needed.

Mr Day said many picnic spots and lookouts were surrounded by privately owned land. To get to the public area, people had to trespass and risk the landowners' wrath.

If the Government could negotiate with the farmers to provide access, large amounts of Queensland would be opened for public enjoyment.

Mr Day said the traditional approach to the provision of national parks involved total land acquisition and was extremely expensive. The land was also lost to rural production.

"Queensland's national parks are being overtaxed, and the state has resources that

are being under-used because there is limited access," he said.

Mr Day said under the proposed system, farmers would have a better deal because the public would be more controlled. In some cases, a part-time ranger would be needed and fences would have to be erected. Compensation to the landowner would have to be considered.

The system worked in Britain, where national parks extended over nearly 10 percent of England and Wales. Yet only a very small proportion of the total area was publicly owned.

"Most of the land remains in productive private ownership. The emphasis is on preserving environmentally significant landscape features through strict land use planning controls and negotiating carefully defined rights of public access to vantage points," he said.

CSO: 5000/7533

PLANNING BODY CALLS FOR CHANGE IN PARKLAND PROGRAM

Sydney THE SYDNEY MORNING HERALD in English 27 Nov 82 p 6

[Article by Andrew Stone]

[Text] BRISBANE--The Australian Institute of Urban Studies has called for less buying of land for national parks but better public access to private land of special interest.

The policy switch could save millions of dollars and halt the loss of prime land preserved under the national parks system, the institute said.

Members of the institute are planners, engineers and academics concerned with land use.

There is opposition among graziers and landowners to the loss of productive land to parks. But conservation groups are pushing for more parks.

About 4 per cent of Australia is national park land. Areas of the States given over to parks vary from just under 2 per cent in Queensland (3.17 million hectares) to 25 per cent of the ACT (61,500 hectares).

Figures for other States, according to the Australian National Parks and Wildlife Service, are:

NSW 5 per cent (3 million ha).

Victoria 3.9 per cent (880,000 ha).

South Australia 4.4 per cent (4.3 million ha).

Western Australia 5.3 per cent (13.4 million ha).

Tasmania 11 per cent (745,000 ha).

Northern Territory 4.2 per cent (5.5 million ha).

NSW has spent \$10.3 million in the past five years buying national parks and reserves. Queensland spent \$3.7 million in that time.

Mr Phil Day, a town planner at Queensland University, and a member of the institute, said: "We're not saying abandon the policy of buying land for national parks. But the cost is growing rapidly, and so is concern about the loss of good land.

"The Australian tradition has been to concentrate on acquisition rather than look at alternatives and means of doing more with less cost."

Mr Day said Governments should look at the system in Britain, where 10 per cent of the country was national park, but the land remained privately owned and stayed in use.

Access and compensation was worked out to ensure the public enjoyed the natural heritage, while land users rights were safeguarded.

Governments soon would have to look at the question of parks because of their heavy use near big cities.

Often the biggest parks were inaccessible or too distant to reach, while handy areas of special value were locked away behind private land.

The general secretary of the United Graziers' Association, Mr Arthur Stephenson, said farmers often complained about people crossing their land.

"You can get a bit upset about a busload of tourists in the paddock as the ewes are lambing," he said.

Landowners would be prepared to give up some land for access roads in return for compensation.

The director of the Queensland National Parks and Wildlife Service, Dr Graham Saunders, said the State Government was looking at ways to encourage farmers to retain natural areas.

Multi-use parks, with public and private activities, also were being considered.

Joseph Glascott, Environment Writer, reports: The institute's access proposal has been rejected for many years in the New World countries. The idea comes from Britain and the closely settled parts of Europe where little land is left for public parks.

The proposal is put forward in ional by the small anti-national park movement led by Mr Oliver Moriarty, of Adelaide, whose Association for Protection of Rural Australia has brought Professor Kenneth Mellanby, of Britain, to Australia to oppose the national park idea.

The US and Australian conservation movements seek to preserve areas of natural and wilderness, rather than the farmlands Europe restricts.

Indeed, the areas suggested as national parks in Australia have little value for farming or grazing.

They are usually mountain ranges, coastal headlands, beaches and far western arid lands.

The British system, adopted because it was too late to do otherwise, is not applicable to Australia.

CSO: 5000/7534

BRISBANE COUNCIL VOICES OBJECTIONS TO MORETON MINING

Brisbane THE COURIER-MAIL in English 25 Nov 82 p 30

[Text]

BRISBANE people should not sacrifice their standard of living just to ensure profits for a mining company, a barrister representing the Brisbane City Council told the Brisbane Mining Warden's Court yesterday.

Mr L.F. Wyvill was summing up the council's case against the granting of sand mining leases on Moreton Island to Mineral Deposits Ltd, which wants permission to mine 0.92 percent, or 174 ha, of the island.

He said Moreton Island, in its natural state, represented a valuable recreational asset for the people of Brisbane and contributed to their high standard of living.

"Why should Brisbane people trade the pleasures of getting away from it all for a \$675,000 profit for Mineral Deposits?" he asked Mr E.J. Blythmann, SM.

The company's mining operations would provide negligible immediate benefits for the surrounding community, Mr Wyvill said.

"The only reason for the application is so they can enter \$30 million worth of assets on their balance sheet," he said.

Presuming the company's application for leases was successful, it would not begin mining until it could do so for a profit, he said. "They are not going to employ a soul now. It requires a boom-time before they will head up here and start mining."

Mr Wyvill said the company's assurances that it would begin mining in 1985 were worthless. The company still had not begun work on mining leases it applied for in 1971.

To allow sand mining on Moreton Island would be like selling it to Mineral Deposits for \$675,000 (the company's projected profits), Mr Wyvill said.

Mr Wyvill said it was unlikely that even a "magnificent sand mining operation" on Moreton Island would attract the same number of tourists as the island's natural scenic beauty.

CSO: 5000/7533

BRIEFS

SALINITY STUDY--THE State Government intends to develop a new integrated research programme into land salinity. The Premier, Mr O'Connor, said yesterday that the work would be undertaken by the research coordinating committee set up by the Government in 1979. A plan should be ready by next March. "The committee has looked at stream salinity tillnow but the Government is aware of the problem in the State's agricultural areas and wants a new and expanded approach," Mr O'Connor said. "While the main resources for research in this area are with the Department of Agriculture, a fully coordinated programme from government departments, industry and research institutions is necessary." The committee, chaired by the Conservator of Forests, Mr B. Beggs, consists of representatives of the agricultural, mining and forestry industries and State Government departments. [Text] [Perth THE WEST AUSTRALIAN in English 1 Dec 82 p 13]

MURRAY RIVER SALINATION--DROUGHT and high salt levels have jeopardised the livelihood of 250,000 people who depend on the River Murray for survival, according to Dr David Armstrong of the Australian Bicentennial Authority. Dr Armstrong said it would be appropriate to mark Australia's Bicentenary in 1988 with a project aimed at rectifying the mistakes of early Murray settlers. Increasing salination due to irrigation in the Murray's upper reaches was strangling South Australia, Dr Armstrong said. He was speaking at the launching of a book called Australia's Greatest River, written by John Larkins, with photographs by Steve Parish. "South Australia and the Murray are slowly being strangled by the salination of that waterway, which has arisen directly from European settlement of this country," Dr Armstrong said. He added: "Increasing salt levels in the Murray have presented a substantial problem for many years and has recently been exacerbated by the drought. "Thousands rely on the river for survival and something must be done in the next few years to ensure these people have a future. The bicentenary gives us an opportunity, a self-imposed deadline if we wish to take advantage of it, for resolving to clean up the Murray." [Text] [Martin Kelly] [Canberra THE AUSTRALIAN in English 3 Dec 82 p 3]

TOXIC WASTE SHIP--MELBOURNE--An American incinerator ship, the Vulcanus, has arrived in Sydney to dispose of liquid waste at sea. The Vulcanus is expected to arrive in Melbourne in mid-December to burn waste liquid by-products from B. F. Goodrich's Altona plant. While in Sydney she will load about 3200 tonnes of ICI waste material stored in bulk tanks licensed by the NSW Government

authorities. The ship will then go to sea and burn the material. A spokesman for B. F. Goodrich in Melbourne, Mr Norman Gamble, said yesterday that the Vulcanus was expected to arrive in Melbourne about December 15. The ship had come from Mobile, Alabama. The Vulcanus will load about 1700 tonnes of Goodrich material in Government-supervised storage tanks at Coode Island near the mouth of the Maribyrnong River.

CSO: 5000/7535

EMERGENCY FUND ESTABLISHED FOR FISH FARMERS HIT BY POISONING

Bangkok BANGKOK POST in English 12 Jan 83 p 3

[Text]

CABINET has approved a 50-million-baht emergency budget allocation to help fish farmers affected by the disease ravaging ponds in the Central Plains and the South, Interior Minister Sitthi Jirarote said yesterday.

Speaking after a two-hour Cabinet meeting, Gen Sitthi told reporters that 40 million baht would be used to buy 200 million fish fry for distribution to the farmers.

A further 5.5 million baht would be used to buy fish for distribution in natural waterways to replace those killed by the disease and 3.5 million baht would finance the setting up of two mobile units to combat the problem.

Chulalongkorn University's Faculty of Veterinary Science will also get one million baht to carry out research into the disease.

"Twenty-four provinces, including two in the South, are qualified to receive the fund," Gen Sitthi said.

He said that the Cabinet had asked the Agriculture Ministry to allocate 500,000 baht from its own budget to buy chemicals to treat the contaminated water.

Cabinet had also asked the Bank for Agriculture and Agricultural Cooperatives to aid the farmers by providing them with low interest loans, he said.

Gen Sitthi said that Cabinet has set up a special committee, together with three sub-committees, to seek solutions to the problem. The committee will be chaired by Public Health Minister, Dr Sem Pringpuang-kaew.

"Another committee was also set up by the Cabinet yesterday to seek long-term solution to the problem," Gen Sitthi said, adding that it would be chaired by Dr Thalerong Thamrongnawase-

wat, under-secretary of state for the Public Health Ministry.

Gen Sitthi said that officials of both Chulalongkorn University's Faculty of Veterinary Science and the Fisheries Department have confirmed that the farm chemicals paraquat and dieldrin, as well as a bacteria known as *Aeromonas Hydrophila*, had a significant role in causing the outbreak.

Gen Sitthi quoted officials of Chulalongkorn University's Faculty of Veterinary Science as saying that a search had begun for the chemicals to de-contaminate affected water.

CSO: 5000/4309

PARAQUAT USED AS HERBICIDE

Bangkok BANGKOK POST in English 12 Jan 83 p 3

[Text]

PARAQUAT — a toxic herbicide detected in water samples collected from contaminated fish ponds in Suphan Buri Province — has been widely used by the Royal Irrigation Department to eradicate water hyacinth, the Bangkok Post was told yesterday.

An informed source said that paraquat was used because it was cheaper than other chemicals, some of which were safer.

"You can find paraquat everywhere from the Mae Ping River in Chiang Mai to any rubber plantations in the South," he said.

Paraquat was also the only herbicide allowed to be produced locally, the source said.

A scientist who works for the chemical's local producer dismissed reports that it had contributed to the outbreak.

Meanwhile, Chula-

longkorn University's Dr Siriwat Wongnir told the Bangkok Post that a survey conducted by his Mahidol University students early last year found more than 0.1 parts per million (ppm) of paraquat in water samples taken from a village in Suphan Buri Province, which has borne the brunt of the outbreak.

An accompanying report said that the Royal Irrigation Department had used paraquat in the area to eradicate water hyacinth.

Dr Siriwat said that paraquat was the most hazardous herbicide in its chemical group, adding that exposure to more than 150 milligrammes could have a fatal effect on the human respiratory system.

Expressing concern at the lack of laws placing strict controls on deadly chemicals, Dr Siriwat

said that herbicides accounted for 42 per cent of the pesticides imported in 1980.

According to "Pesticide Handbook: 1981-82," most of pesticides used widely in Thailand, including paraquat, 2,4-D, 2,4,5-T, dieldrin, aldrin, BHC, chlordane and parathion, had been banned in several countries, particularly in the US.

Dieldrin, which was also found in the water samples collected from Suphan Buri fish ponds, is far more dangerous than paraquat. The World Health Organisation categorises it as "highly hazardous," said Dr Siriwat.

Meanwhile, the Royal Irrigation Department has reportedly been told to discharge water from the Chao Phraya Dam in Chai Nat Province to flush out contaminated waterways in the Central Plains region.

CSO: 5000/4309

UN AGENCY TO HELP IN DETERMINING TOXICITY OF HERBICIDES

Bangkok BANGKOK POST in English 12 Jan 83 p 3

[Text]

THE United Nations Environment Programme (UNEP) headquarters in Geneva is expected to provide confirmation tomorrow of the exact toxicity of fish-killing herbicides in the Central Plains.

In an exclusive interview before he left Bangkok last night, UNEP executive director Dr Mostafa Tolba said that the arrangement to provide the information was made when he held talks with the National Environment Board yesterday afternoon.

Dr Tolba, a microbiologist, said there was an urgent need to determine the exact toxicity of the herbicides to humans.

The UNEP director also raised before the NEB other possible causes behind the mass fish deaths.

He said herbicides could have upset the ecological balance between micro-organisms in the water and a water bacteria known as "Aeromonas." The herbicides could have killed the

micro-organisms which keep the bacteria in check. The result is a higher concentration of bacteria which is potentially capable of killing fresh water fish.

"It is also possible that, the ecological balance was not changed, but that increased amounts of herbicides gradually weakened the resistance of the fish to the 'Aeromonas' bacteria," Dr Tolba said.

During his talks with Thai officials, Dr Tolba also reaffirmed UNEP's support for Thailand's environmental projects.

Speaking on the four most pressing environmental problems in the Asian region, Dr Tolba called on governments to renew their efforts in solving the problems of deforestation, soil loss, desertification and water management.

"The world is losing up to 12 million hectares of tropical forest every year, with the major loss occurring in the developing world," he said.

CSO: 5000/4309

LIBYA JOINS GREEN BELT PROJECT

London JAMAHIRIYA REVIEW in English No 29, Oct 82 p 18

[Text]

THE LIBYAN Jamahiriya's National Office for Consultative Agricultural Studies has signed an agreement with the North African Green Belt Project in Tunis, the Libyan news agency JANA announced on 23rd August. The agency said that the agreement called for 'a comprehensive study of the best uses of forest lands, pastures, soil, and water, and on how best to preserve the natural resources of the North African countries'. It also provides for increased co-operation between the Arab countries of North Africa in protecting the environment and checking the advance of the desert onto cultivated land.

The principal means of countering the encroachment of the desert is afforestation. Trees help conserve water and soil by reducing surface run-off rains, and also

act as wind-breaks, slowing down the movement of dunes.

The Green Belt Project was set up in the early 1970s, following a UN conference on desertification. The conference recommended six regional afforestation schemes, of which one called for the establishment of a zone of forest along the northern edge of the Sahara desert.

Libya has for many years been engaged in an ambitious afforestation programme, that is continuing during the period of the current 1981-85 development plan. By the middle of the decade, the total number of date palms in the country will rise to 5.2 million, compared with 4.6 million in 1980. Fruit trees will increase from 3.1 million to 4.1 million, and an area of 228,848 hectares will be planted with a variety of forest trees.

CSO: 5000/4605

WATER TECHNICIANS VITAL, SAYS MINISTER TIELASE

Maseru LESOTHO WEEKLY in English 7 Jan 83 p 1

[Article by K. Kotsokoane]

[Text]

Lesotho requires Water Technicians here and now to handle her domestic, agricultural and sewerage needs.

This was said by the Minister of Education, Sports and Culture, Mr. Bishop Tielase after attending a ten-day Training and Research for Developing Countries conference in Paris. The theme of the UNESCO sponsored conference was "International Hydrological Programme."

Mr. Tielase expressed the view that it was time Lesotho set up a Water Technical Institute to prepare both secondary and high school teachers to introduce water studies in the curriculum.

It is also hoped that hydrological studies will be introduced at the National University in future.

With the Highland Water Scheme in mind, the Minister said, it is not possible to talk of water without soil.

EROSION

Mr. Tielase however, expressed hope that UNESCO could assist Lesotho by providing her with technicians to tackle the

problem of desertification and erosion.

He went on to explain that the nature of Lesotho's soil is such that even without blaming the herds of sheep and cattle for erosion, the soil would still be eroded.

The rainfall is irregular and usually preceded by long periods of drought and when the wind blows, it carries away the top soil. The rain also washes away the soil when it does fall, the Minister said.

According to Mr. Tielase the water technicians would also help to direct our water to avoid erosion and yet still harness it for other purposes.

EDUCATION

Speaking about his trip to the British Overseas Agency (ODA) offices in London, Mr. Tielase said that ODA might be able to help his ministry place as many Basotho as possible in the new British Educational Institutions

that cater for both mental and physical development of the individual.

He emphasised the need for similar institutions in Lesotho to enable high school students to identify and acquire professional skills at the onset. Today's world needs more skilled and practical work, he added.

Mr. Tielase disclosed that the British Government could assist Lesotho by providing inspectors to help implement any methods introduced in the science and education departments. This advice as to what to introduce and how to teach it, would also be given by the British Government.

In conclusion the Minister said that this application of a combination of academic and practical subjects in schools would in the long run enable Lesotho to change to a more relevant educational system that would meet her manpower needs.

PROJECTS TO DAM RIVERS ADVOCATED

Maseru LESOTHO WEEKLY in English 7 Jan 83 p 4

[Editorial]

[Text]

THE Ministry of Agriculture and Marketing has this week sent three teams from its divisions of crops, Livestock and range management to all districts to assess the prevailing drought in the country.

These teams have been assigned to ascertain and assess the extent of drought and make recommendations on the steps to be taken.

Lesotho, like other countries in Southern Africa, is faced with devastating drought.

Studies of the rainfall pattern over the past years indicate that the sub-continent is going through a dry period of the rainfall cycle.

If we cannot have soaking showers within reasonable time, we are heading for a disastrous situation.

Last year's crops including those under the Food Self-Sufficiency Programme were caught up by both drought and early frost.

But we cannot fold our hands and expect some miracle come our way. We have learned the hard way that rain never comes at the time when we are in dire need of it.

Lesotho's winter precipitation in the mountains like, through the Senqu River, fed many of South Africa's irrigation dams for generations. Hence that country's gaze over the Impending Highlands Water Scheme which will enable the Transvaal to drink "Maloti Mountain Water" by the year 2000.

A measure such as small irrigation schemes throughout the country would be highly remedial.

We should dam our rivers and make use of our sparkling "white gold" whenever a predicament like this arises, to at least, alleviate the situation.

CSO: 5000/77

LESOTHO

BRIEFS

TASK FORCE TEAMS--Three drought assessment teams began their visit to all the country's districts on Tuesday, according to a spokesman for the Ministry of Agriculture and Marketing. The teams whose task is to assess the effects of the drought in the country are to consult with District Agricultural Officers and District Co-Ordinators and make arrangements for the assessment activities in each districts. [as published] These included inspections, interviews and meeting with farmers, chiefs and other people. The first team consisting of Mr. E. Molise (Crops), Mr. P. Motjope (Livestock) visited Mafeteng district on January 4, Mohale's Hoek on January 5, Quthing on January 6, and will be in Qacha's Nek tomorrow. The second team which was made up of Mr. Lehloba (Livestock), Dr. Tewari (Crops) and Mr. Sekoto (Range Management) visited Maseru district on January 4 and Thaba-Tseka on January 6. The third consisting of Mr. K. E. Matsaba (Crops), Dr. Letuka (Livestock) and Dr. Tim Tiedeman (Range management) visited Berea district on January 4, Leribe on January 5, Butha-Buthe on January 6 and will be in Mokhotlong on January 8. [Text] [Maseru LESOTHO WEEKLY in English 7 Jan 83 p 5]

CSO: 5000/77

OIL SPILLAGE CAUSES ABANDONMENT OF FOUR TOWNS

Lagos DAILY TIMES in English 6 Jan 83 p 24

[Article by Simon Ebare]

[Text]

A NUMBER of people were alleged to have deserted four towns on the eve of Christmas celebrations due to another oil spillage within the Chanomi Creek in Burutu local government area in Bendel State.

Reports reaching the DAILY

TIMES in Warri indicated that some of the inhabitants of Sokobolo, Obotobo, Ofogbene and Ezon-Asa in Burutu Local Government area moved out of their houses when they discovered that their fishing channels and ponds have been covered by crude oil.

Sources said that the spillage was first reported to the Shell Petroleum Development Company of Nigeria Limited by a police officer who is an

Indigene and community leader in the area.

Operation

According to the sources, the spillage had occurred within a valve at a control unit along the line in the creek.

The sources said Shell Company immediately mobilized its workers soon after it had been alerted by officials on patrol with a helicopter for a mopping up operation.

Meanwhile, the communities alleged to have been affected by the oil spillage have

jointly petitioned against what they described as extensive pollution of the area and the destruction of Sokobolo, Obotobo and individual or community properties.

In a letter addressed to the divisional manager of the Shell from Broderick Bozimo and Company Chambers at Warri, the community leaders said they regretted to observe that their fishing creeks, channels ponds and swamps have been covered by crude oil while other economic trees have been damaged.

CSO: 5000/75

SOUTH AFRICA

BREAK IN DROUGHT REPORTED, TOO LATE TO SAVE CROP

Thunderstorms Forecast

Johannesburg THE CITIZEN in English 17 Jan 83 p 2

[Text]

THE drought was broken over most parts of the Transvaal and scattered thunderstorms, with warm temperatures, are forecast for today.

A spokesman of the Weather Bureau in Pretoria said yesterday that the heatwave which prevailed last week, was finally over and normal summer conditions could be expected.

Isolated thunderstorms are forecast for northern parts of the Transvaal where no rains fell in recent weeks.

Scattered thundershowers are forecast for

most of the country, except for the north-western Cape where it should be fine with warm weather.

Temperatures recorded at 2 pm yesterday, were higher than before the weekend: Pretoria — 27 degrees, Jan Smuts 24, Bloemfontein 28, Durban 29, Port Elizabeth 24 and Cape Town 18 degrees.

The northernmost region in the Transvaal, Messina, had 31 degrees, while the hottest place in the Republic was Graaf-Reinet, Cape Province, with 31 degrees. Temperatures at Skukuza and

Nelspruit were 29 degrees after an increase from 22 and 24 degrees respectively on Friday.

Lowest minimum temperature recorded was 14 degrees at Okiel, and in the Transvaal, Bethal had 15 degrees.

In the Transvaal today it will be partly cloudy and warm with scattered thunderstorms which will be only isolated over the eastern and northern Transvaal.

Over the eastern Transvaal lowveld and escarpment, it will be cloudy with

fog and drizzle in the morning.

Johannesburg temperature will be 25 degrees. Pietersburg 28, Pretoria 27, and Nelspruit 28.

In the Free State and Cape north of the Orange River, it will be partly cloudy and warm with scattered thundershowers. Over the southern Free State and Gordonia, only isolated thunderstorms are forecast.

Temperatures will be Bloemfontein 29 degrees. Kimberley 29, and Bethlehem 25.

The Weather Bureau

forecast for the Cape Province south of the Orange River is fine and warm over the western interior but partly cloudy and warm with isolated thundershowers over the north-eastern Cape and eastern interior.

It will become cloudy and cool along the south and south-east coast with light rain, clearing from the west.

It will be partly cloudy and warm with scattered thundershowers in the north of Natal, but also cloudy and cool in the south along the coast with light rain at times spreading northwards.

Durban temperature will be 26 degrees, Pietermaritzburg 25, Ladysmith 29 and Queenstown 28.

Hottest place today will be Keetmanshoop with 31 degrees.

It will be partly cloudy and warm to hot with scattered showers in South West Africa.

In Botswana it will be partly cloudy and hot with scattered thundershowers, except for the southwestern parts.

Fifty Percent Beyond Salvage

Johannesburg THE CITIZEN in English 18 Jan 83 p 3

[Excerpts]

ALTHOUGH widespread thundershowers have broken the drought in many parts of South Africa, the rain has come too late to save much of this season's crop.

The Transvaal Agricultural Union said yesterday between 50 to 60 percent of all crops planted before the drought started could not be salvaged. Not even full-scale showers and floods would save them.

The only hope, according to the union's assistant secretary, Mr Jan Huisman, is that rain will continue to fall in the next few days and benefit young maize and wheat planted after most summer crops were sown last year.

"There's nothing that can help the old crops already shrivelled up because of the drought," he said.

"Farmers will simply have to sell those at a lower grade, in lower quantities and for a lower price than they hoped. The only benefit rain which fell at the weekend will have is on young crops — but unfortunately those were planted in smaller quantities.

"Yield conditions may also improve as a result of the rain and this will obviously benefit livestock."

According to Mr Huisman, all crops planted early have suffered. They include maize, wheat, sorghum and even potatoes.

Average yield per acre in the Transvaal for grain in previous years has varied between 30 and 60 bags, depending on the area. This year yields can be expected to range from about 10 to 20 bags, and could be lower.

If drought conditions resume.

The Pretoria Weather Bureau believes rainy weather should prevail for the next few days. A spokesman said yesterday much of the country could expect isolated thundershowers today. The eastern parts of the country could expect rain, he said.

"It looks as if the season is returning to normal, although our predictions in the long term may change," he added.

Towns which received fairly good rainfall on Sunday were Pretoria (3.4 mm), Middelburg in the Transvaal (27 mm), Bloemfontein (17.6), Vryburg (67.8), Flat Relief (23.6) Kimberley (9.8) and Kroonstad (9.8).

Light showers were also widespread and even South West Africa had its fair share of drizzle yesterday.

But at the weekend soaking rain and lightning — a rare sight in drought-stricken SWA — disrupted domestic and international air traffic at Windhoek's JG Strijdom Airport.

Also at the weekend the season's first hail storm hit drought-stricken Ficksburg, damaging maize and sunflower crops in the Modimolle district.

A total of 11 mm of rain fell in Ficksburg at the weekend, reports Soaps.

In Pretoria it was reported yesterday that damage estimated at thousands of rands was caused when hail and winds hit Beekenhout in Kwa-Ndebele at the weekend.

Several houses in the district — which is about 100 km north-east of Pretoria — were damaged.

CSO: 5000/76

MINISTRY PLANS TO TRANSFORM IRRIGATION REPORTED

Harare THE HERALD in English 11 Jan 83 p 5

[Article by Ndaba Nyoni]

[Text]

THE Ministry of Lands, Resettlement and Rural Development is investigating the economic viability of all the country's small irrigation schemes, the Permanent Secretary in the Ministry, Dr Langford Chitsike, said yesterday.

In an interview with the Herald, Cde Chitsike said that under the Government's three-year National Transitional Plan, all small irrigation schemes, most of which had been neglected in the past, would be transformed into commercially productive units.

The ministry's provincial authorities are collecting data on all irrigation schemes in their provinces and we have a team of top officials going round the country monitoring and co-ordinating the studies.

"We will also hire a consultancy company to carry out an in-depth study so that we leave no stone unturned in our endeavour to promote small irrigation schemes."

REPLANNING

Cde Chitsike said his ministry was replanning the designs and layouts of many irrigation schemes to make them bigger and so enable mechanisation and production of strategic crops with high financial returns.

The ministry was now providing all essential services on the schemes.

especially maintenance, extension advice, management training and tillage.

He said many people were practising irrigation on a part-time basis and this was hampering the development of many schemes.

"We are presently encouraging all irrigators to operate on a full-time basis because that is the only way they can be truly committed to the development of their schemes."

He called upon all irrigators to practise effective farmer participation by forming irrigation committees and co-operatives.

On allegations that the failure of many irrigation schemes in Matabeleland had been caused by lack of co-ordination between the ministries concerned and that most of the schemes had been left without the essential facilities such as tractors, Cde Chitsike said:

"The allegations are an exaggeration of the situation. In fact, there is constant contact between my ministry, Agritex and the Ministry of Water Resources and Development."

He said the drought in Matabeleland had minimised the development of many schemes and, in most cases, water sources had dried up.

COMPLAINT

Citing a complaint from Chikwarakwara Irrigation Scheme, in Matabeleland, that it had been promised a tractor which had yet to be delivered, he said:

"At present the ministry has 20 tractors to cater for all the country's irrigation schemes and eight have been sent to Matabeleland. The eight rotate among all the schemes in Matabeleland.

"On the case of Chikwarakwara, it was only said that the tractor would plough an agreed piece of land and it was withdrawn after completing the task for which it had been sent."

He said the ministry had ordered 250 tractors from Italy, France, Japan and Britain and 100 had already arrived and were being assembled.

Asked how the people of Matabeleland were responding to the idea of working on irrigation schemes since most of them were stock-oriented, he said the outlook had changed.

"Although many of them depended on livestock monoculture, the number of applicants to work in irrigation schemes exceeds the number of plots the ministry can provide.

"About 30 percent of the people do not have any cattle and with the threat the drought is posing over the future of many animals in the area, many people now see irrigation as the only means of living," he said.

SOUTH AFRICA

BRIEFS

EFFECTS OF DROUGHT--MANY areas of South Africa remain in the grip of drought in spite of the recent wide-spread rains. A spokesman for the Eastern Cape Farmers' Co-operative said yesterday the land between Queenstown and East London and on to Port Elizabeth is burnt and both livestock and crop farmers are badly affected by the severe drought. The areas of Komga, Aliwal North, Cradock and Alexandria are extremely dry. Maize and seed crops have failed and the ground is hard and dry preventing farmers from lifting chicory crops. In the Northern Cape, the western parts of Gordonia are worst affected by drought, according to Mr Tokkel Carstens, secretary of the Orange River Farmers' Co-operative. Water is having to be transported to cattle in the northern Namaqualand areas and there is little grazing for livestock over the whole of the Northern Cape. A spokesman for the Transvaal Agricultural Union, Mr Joel Koetze, said the main problem was north of the Soutpansberge where the situation was critical. There was a shortage of grazing for cattle in the region of the Limpopo River. Some rain had fallen in the Pietersburg, Potgietersrus and Nylstroom districts but it was too late for most crops. Mr Koetze said the late summer crops, such as sunflowers and summer wheat, were doing fairly well as a result of the rain. Maize, which was planted this month instead of in November, around Nylstroom and the Springbok Flats would do well if more rain fell. The situation in the Plaston area in the lowveld was critical as there was no water in rivers and dams for irrigation, said Mr Koetze. Rain fell in the Barberton area but Goedspruit and Phalaborwa needed more rain. Maize farmers in the Eastern Transvaal estimate they will lose 60 percent of their crop, despite the rain in some areas because the damage was already done. The main problem in the whole of the Transvaal remained lack of grazing. [Text] [Johannesburg THE CITIZEN in English 25 Jan 83 p 3]

DURBAN'S WATER RESTRICTIONS--DURBAN residents will face strict water restrictions from next Tuesday, including a complete ban on the use of sprinklers. The city engineer, Mr Don MacLeod said yesterday that at this stage it had been decided to allow residents to water their gardens with hosepipes held in the hand on Wednesdays and Sundays between 3 pm and 6 pm. The use of hosepipes to clean cars would be totally banned. The restrictions were regretted but calls for voluntary restrictions had fallen on deaf ears and because of the hot conditions in the last two months there had been a tremendous increase in the volume of water used. His department was determined to enforce the restrictions. First offenders would be fined R200 and second offenders R500. Similar water restrictions came into force in the Pietermaritzburg area

yesterday and from the beginning of February water restrictions will be enforced at Pinetown, Kingsburgh, Umhlanga and Howick. Mr Fred Munro, the circuit engineer for the Water Board in Natal, said yesterday that the decision to impose restrictions in the Durban area was inevitable. He predicted that unless heavy rains fell these restrictions would be enforced for most of 1983. The level in the Albert Falls Dam was only nine percent and the Midmar Dam was only 46 percent. These two dams supplied Durban and Pietermaritzburg with water. However, despite the good rains a spokesman for the Natal Agricultural Union said yesterday that it was estimated at this stage that the overall crop failure in the province was about 40 percent. The maize harvest would record a loss of about 60 percent. [Text] [Johannesburg THE CITIZEN in English 25 Jan 83 p 12]

KWAZULU BOREHOLE PROJECT--More than R650 000 has been donated to the Kwa-Zulu Water Development Fund for supplies of water in rural areas following the nationwide drought which is particularly severe in Kwa-Zulu. The money has been used towards the sinking of more than 140 boreholes and fitted handpumps throughout Kwa-Zulu, from Ingwavuma in the north to the lowest south coast--all areas suffering under the present drought. According to the South African Sugar Association which is sponsoring the fund, the drilling programme for 1983 has started in the Nongoma district where the first 30 already planned for Kwa-Zulu will be sunk. The project is intended to provide a permanent solution to the perennial problem of water shortage. It costs R3 850 to establish a borehole fitted with a handpump which will serve approximately 2 000 people. The association said that the drought has highlighted the need to bring fresh, clean water supplies to rural areas. The killer drought, one of the severest for many years, is being accompanied in many rural areas by cholera, typhoid, shigella and other gastro related diseases, according to the association. [Text] [Johannesburg SOWETAN in English 20 Jan 83 p 4]

CSO: 5000/82

USSR

FLOOD ENDANGERS LENINGRAD

Moscow PRAVDA in Russian 26 Nov 82 p 6

[Article by B. Gerasimov: "The Neva is Raging"]

[Text] A stormy wind with gusts of up to 20 meters per second has been raging in recent days over Leningrad. Ship crews in the local ports, dock workers, the workers of shipbuilding wharves and of other enterprises located in the coastal zones of the Gulf of Finland and the Neva, transportation workers, and civil defense formations have been in a state of readiness to repel possible assaults by the elements.

The precautions have proven unnecessary. A powerful cyclone in the North Atlantic formed a so-called surge wave, and it, becoming steeper and steeper as it moved through the shallow water at the Gulf, entered into the Neva Bay and blocked the river current.

The water began to rise in the Neva, and the rivers and canals of the city during the morning, and by 1:00 in the afternoon it had already reached the level of 207 centimeters above zero of the Kronshtadt tide gauge. Rising over the banks, the waves poured onto the land in the low spots of Vasil'yevskiy, Kamennyy, Krestovskiy, Aptekarskiy, and Kanonerskiy Islands, on Kotlina, where Kronshtadt is located, and onto the Karelian Isthmus. There was a partial flooding on the grounds of more than 30 enterprises, and in some places the water flooded the cellars of houses and warehouses. Work had to be stopped at construction sites and in the seaport.

The city commission that deals with natural calamities informed the city's residents about the impending danger in good time. As always, Leningraders demonstrated good organization and discipline, acted in accordance with a calamity plan, and took the necessary measures to prevent and decrease possible damage.

Nevertheless, as inevitably happens with such high waters, the flood caused definite damage to industrial enterprises and to city services. The amounts of losses are being estimated. There were no deaths or injuries. The consequences of the flood are being eliminated.

2959
CSO: 5000/32

ECOLOGICAL PROBLEMS OF INDUSTRIAL SVERDLOVSK DISCUSSED

Moscow SOVETSKAYA ROSSIYA in Russian 18 Dec 82 p 2

[Discussion between the writer B. Ryabinin and Chairman of the Sverdlovsk gorispolkom P. Shamanov: "So That It Blossoms Like a Garden"]

[Text] The writer B. Ryabinin and Chairman of the Sverdlovsk gorispolkom, P. Shamanov, open a discussion on how to more wisely solve the urgent problems of growth and life of a large industrial center.

This is a discussion about a native city, its fate, health, and beauty. The participants are the chairman of the gorispolkom P. M. Shamanov and the writer B. S. Ryabinin, citizens of Sverdlovsk. They are concerned with the same things, their thoughts and moods are so close that it would seem that there is no serious reason for discussion. Nevertheless, there are disputes. This is a complicated problem, the ecology of a large modern industrial center.

[Ryabinin] One looks into the past and thinks: we, the people of Sverdlovsk, perhaps did not notice how our city grew. It already has a million people! For all of us this was pleasant news. But there are still a million new problems.

[Shamanov] There are enough concerns. It would seem that we are building a lot of housing, 600,000 square meters per year. Population of the new region Parkovyy has begun. There are hospitals, schools, and trade centers. There is the Palace of Culture of Uralmashzavod. There is an engineering house. Working drawings are being prepared for 3 new structures of the hotel "Bol'shoy Ural." But a large city no longer has the same problems, they are larger and more complicated. For example, the transportation problem: the street cars, trolleys, buses no longer solve everything. We need a subway. It is the same situation with the telephones. In this five-year plan we will introduce 50,000-55,000, but we need many more. And then there is the food problem.

[Ryabinin] This is on the shoulders of the state committee.

[Shamanov] But of course! The auxiliary services will have larger enterprises. A total of 66,000 hectares of unproductive land in different regions have been assigned to the city. They should be put into order, and introduced into the economic turnover.

As you know, Sverdlovsk needs a lot of water. The average resident needs 247 liters per day (this is significantly more than, in many large European cities), and the city as a whole requires 575,000 m³.

[Ryabinin] Let's talk about the water resources. Here is a letter from the pupil of the Malo-Istok children's home. "Our lake is endangered by pollution. Who is guilty?" It turns out that we are creating new reservoirs, but are destroying the old ones. The city is discharging untreated water here.

[Shamanov] Unfortunately this is true. Pollution of the reservoir in Maliy Istok occurs because of discharge of untreated rain run-off. In order to improve the situation, a water-duct, unloading collector are now being built, and treatment works are being planned.

[Ryabinin] A lot has been said about "eternal repair." Is it really impossible to plan it so that mountains of earth are not infinitely turned over? A bridge has begun to be expanded over the Lunacharskiy street, they have planted lindens. On the Malyshev street, dozens of poplars have been cut. Mass cutting of bushes! In the last decade in the attempt to be fashionable living hedges were eliminated almost everywhere, not excluding the intra-apartment territories and the main streets with intensive traffic of automobiles.

[Shamanov] It goes without saying that one should save the vegetation. But I cannot agree with the categorical statements, the opinions about some "evil forces," which only crush and break. All decisions are made as a result of prolonged and comprehensive discussion, with the involvement of all the interested state and public organizations. It is impossible to not take into consideration the fact that the enormous industrial city which is developing on the old development area will encounter complicated problems in the formation of intensive transportation lines, engineering networks, communal support, trade under conditions of high density of the population and other factors.

Boris Stepanovich, no one planned any "mass cutting", and the cases about which you have spoken are few. On the contrary. Every year the number of trees and bushes, and flowers which are planted rises. But this no longer satisfies the people of Sverdlovsk. The 11th Five-Year Plan provides for an increase in the greenhouses to grow flowers from 5 to 10 million per year, nurseries from 6.3 to 7.1 million. There will be a 1.5-fold expansion in the area of nurseries for growing trees and bushes. Their cutting without compensation by planting has been forbidden.

It is necessary to continually educate in every person the feeling of responsibility for his city. Unfortunately, at times the citizens do not sufficiently actively participate in the sanitary days: it is difficult to get people to participate in clean-up, landscaping, and improvements.

[Ryabinin] We should look at how protection of plants has been set up in other cities. In Kiev, for example, cutting of a tree requires permission of the gorsovet. Moscow is showing an excellent example. According to a conclusion of the specialists, already 25 m² of landscaping per person will guarantee complete compensation for the loss of oxygen in the air. There are 44 m² of landscaping per person in the capital. This a precedent among the largest cities of the world! And us? Why can we not have the same thing?

There are, of course, people who do not show a desire to plant. But there are many activists. They look and they see: today you plant, tomorrow they will destroy.

[Shamanov] Possibly, all that is valuable we must preserve. We cannot get tired. I would merely like for you to present this problem in its entire scale. In the 1930's, the residential fund of Sverdlovsk was 3 million m^2 , now it is 17.5 million. The volume of passenger travel has risen 25-fold! With this rise it is difficult to live without affecting anything, although, I will not dispute, there are workers who break things without thinking. They are poorly educated.

[Ryabinin] It is also necessary to think about sanctions and to resort to administrative measures. If a driver runs into a tree he should pay.

[Shamanov] There is a scale of fines. The fine for a broken tree is R 50. For different violations, administrative, in certain cases criminal responsibility has been stipulated. We are very concerned about the fate of the forest parks and the landscaped zones. Under the pressure of circumstances, we are forced to set aside areas for quarries. This is what happened. There are not enough bricks. The clay quarries are within the city limits. But it is still sad to cut down a forest for it. If it was cultivated in time 30-40 years ago, it would have grown. But imagine yourself in my place. For a year and a half I haven't signed documents to establish new quarries at the Shartash lake, but there could be an interruption in the construction. In order to solve this question, in order to get materials, and to preserve nature, additional resources are needed. There are not enough of them allocated. The Ministry of Power and Electrification, Ministry of Heavy Construction, Ministry of Communal Services are not very disturbed by our concerns. There is a solution: it was necessary by 1980 to remove all the quarries beyond the city limits.

[Ryabinin] Now let us talk about the automobile in the city. Permit me to show you yet another letter: "About the predominance of private automobiles."

[Shamanov] We have a lot of letters about this.

[Ryabinin] The people of the city are thinkers. Listen: "We have gone the way of increasing the number of light cars for personal use, and they are already taking the place of man."

[Shamanov] The rate of increase in cars perceptible. In January 1982, there were 76,139 vehicles in the city, of which 41,716 were cars. The garages are spoiling the appearance of the city. Major garages occupy 68 hectares of city territory, and there are 150 hectares for temporary garages. Of course, if we do not remove these iron banks, they will ruin our lives. But there is a solution here. It is in the microregion. The central garages are arranged in the basements of the residential houses which are being built. According to the general plan, 40 percent of the cars must be underground. It has been forbidden to set up temporary garages in a residential construction site.

[Ryabinin] The decree has been made, but the number of garages is increasing.

[Shamanov] Not everything is as simple as it seems. If we speak about exclusions, then they are only permissible for invalids. But the main thing is to solve this question in a major way. Multi story garages for 1600 places on the Moskovskiy shosse, at the exit from the city have been planned through money from the car owners. But this will not solve everything. We need open pay lots, boxes on the right of way, on territories which are not convenient for major construction.

[Ryabinin] A person should know in advance (foresee!) what his actions will lead to, and act so that there is the least damage (ideally, no damage) to nature. Have you not become acquainted with the ecological program "Donbass" which was developed by the Ukrainian comrades? The program has taken into consideration everything: when to build, where the landscaped areas will be. This is a long-term comprehensive program! (By the way, they did not forget about the car problems). A computer will instantly indicate where it is unfavorable, and where one can expect unpleasantness. Over 80 scientific institutions and enterprises of the Ukraine, Moscow, Kazakhstan, Urals (note, even Urals!) and Siberia participated in compiling the program. The council of the Donetsk scientific center is monitoring it. The results are graphic: the administrative center of the Donetsk Oblast is currently among the most beautiful and well-built industrial cities of the world. It has about 150 enterprises, almost the same number as we have in Sverdlovsk. The city has a million residents, and a million rose bushes! There are 160 m² of landscaping per resident, not including the lawns.

Why should our city, Pavel Mikhaylovich, not have an ecological program? We have the forces for this: the Ural scientific center of the USSR Acad my of Sciences, the Institute of Plant and Animal Ecology. If they participated in compiling the program "Donbass", then here at home, it seems a must...

[Shamanov] A lot has already been done in this light. But, of course, you correctly suggest that the institute of ecology be included. One can communicate with the forest engineers. I will subscribe to your suggestion. The ecological program is what we should be seizing with both hands. But I would like to say something more. It is not only a case of forecasts, plans, and computers. There is still the question of education. It is necessary to form psychology and culture.

[Ryabinin] And responsibility. I would like to say this: responsibility is personal for everyone without exception. Responsibility is service, without any references to something or someone. Finally, responsibility is a concern of the leading agencies. When an enterprise turns to its department, and if it solicits the obispolkom, gorispolkom, party, social agencies, with a question of the life of the city, it is impossible to brush it aside. This contradicts our moral standards. We would like to be proud of our cities, of the fact they have a better habitat.

[Shamanov] What the city must do, it will do. Sverdlovsk has a warm worker heart. It will not stint on efforts so that not only does the city work well, but we have a comfortable life for us and our future generations.

[From the editorial board] The dialogue of the leaders of the ispolkom gorsovet and the writer provides a sufficient idea about the complicated problems of city ecology. Nevertheless the conversation requires a comment. It expresses the opinion of representatives of the local authorities and society. But, in addition to them, leaders of the sectors whose enterprises are located here, whose collectives comprise the majority of the population of this industrial center are also interested in the development of the city, therefore it is important to know their opinion, and their plans for solving the urgent problems.

There is yet another question. The speakers talk about their native city. But the problems are not only inherent to Sverdlovsk. In the pattern that the readers see, figuratively speaking, they can recognize many Russian cities, especially our cities with population of a million. Each, indisputably, has its own features, but in this case we are concerned with problems which are close to everyone. One can, of course, take an example from one, learn from another, this is also what the conversation was about. Of course, there is something to be said on this topic to the residents and workers of the city soviets, the leaders of the enterprises of other industrial centers. We will wait for the readers to continue the conversation.

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REGULATORY STANDARDS FOR CONTROL OF OIL POLLUTION OUTLINED

Moscow NEFTYANIK in Russian No 9, Sep 82 pp 13-14

[Article by Ye. Andreyev, L. Pliskovskaya, V. Volkovinskiy, N. Mikhaylov, I. Cherkasskaya, State Committee on Standards: "State Standard on Protection of Nature"]

[Text] Questions of environmental protection and efficient use of natural resources at the current stage of the development of industry, science and technology acquire great national economic importance. The further development of productive forces of the country, and improvement in material level of life of the people depend a lot on their correct solution.

The ministries and departments are regulating the activity in order to protect the environment. They have developed different standards, rules, instructions and recommendations. However, these documents are aimed at solving individual, often narrow departmental tasks of environmental protection activity, and cannot completely regulate this activity on a national scale. This regulation can be done with the help of the state system of standardization which is an effective tool of state-legal regulation, since the requirements of the standards are mandatory for execution. The use of the methods and resources of standardization will guarantee a single approach to solving the problem of environmental protection, and the efficient use of natural resources in different sectors of the national economy.

Standardization by now has accumulated great experience in solving major national economic problems, such as construction of a unified system for protection of materials and items from corrosion and aging, a unified system for technological preparation of production, a state system for guaranteeing unity in measurements, unified documentation system and automated control system, quantitative methods for optimizing the parameters of standardization objects, systems of labor safety standards, etc.

The state system of standardization is a branched network which includes all-union agencies of standardization and their services, services of standardization in the sectors of the national economy, in the union republics and at the enterprises. The USSR is developing and introducing standards of four categories: state, sector, republic and enterprise (association).

There are over 23,000 state, 45,000 sector and 7,000 republic standards and 137,000 specifications active in the country in 1981. The total annual economic effect from introducing the state standards alone in recent years averaged R 1.5 billion.

A decree of the CPSU Central Committee and the USSR Council of Ministers of 29 December 1972 "Intensification of Environmental Protection and Improvement in the Use of Natural Resources" entrusted the State Committee on Standards to stipulate, starting in 1973, the development of a set of general engineering standards for environmental protection and efficient use of natural resources in the state standardization plans. By fulfilling this decree, the State Committee on Standards jointly with the ministries and departments developed a number of standards of the CEMA, state standards and standard-engineering documents which regulate environmental protection activity.

A number of types of economic activity on water objects and catchment areas aimed at preventing their contamination and obstruction have been standardized by now.

Oil and petroleum products are the most mass substances which pollute the water space. Significant increase in the quantity of extracted and transported oil means that several million tons of petroleum products are annually discharged into the oceans. Studies of the USSR State Committee on Hydrometeorology and Monitoring the Environment indicated that the quantity of oil in the sea water on the shores of Europe often exceeds the maximum concentrations of harmful substances in the water set in the USSR. A similar situation is observed on the vast areas of open sea in the North Atlantic, and also on the coast of the United States.

A number of standards reflect the general requirements for protection of surface and ground water from pollution by oil and petroleum products.

GOST 17.1.3.0582 and ST CEMA 3078-81 have generalized and systematized the requirements contained in the national standards and standard documents of the member countries of CEMA. The standards regulate the conditions for transporting and storage of oil and petroleum products, including requirements for equipment, facilities, structures and devices for transport and storage. GOST 17.1.3.02-77 has standardized the rules for protecting sea water during drilling and development of oil and gas wells, regulated the construction-installation and drilling operations, conditions for transport and storage of bulk materials, chemical reagents and flushing fluids, collection and elimination of sludge and waste water, water-protection requirements during testing of wells, and also stipulated measures aimed at preventing oil and gas blow-outs and open gushing.

In order to obtain comparable data regarding water pollution by oil and petroleum products, general requirements were standardized for methods of determining the content of petroleum products in natural and waste waters (GOST 17.1.4.01-80). The CEMA standard (authored by the Hungarian People's Republic) is in the development stage. It regulates the conditions for transporting oil and petroleum products by truck. The standard will establish the technical requirements for material and design of the tank trucks, conditions for loading, emptying and cleaning of the tank trucks, rules for eliminating leakages of oil which occur as a result of accidents.

Method instructions are being developed to determine the general requirements for objects of standardization in the area of protection from pollution by **waste** petroleum products. This includes unification of terminology, development of standards and systems of protective measures for protecting the environment from pollution by spent petroleum products, classification of factors deteriorating the environment, and measures for its protection, unification of methods for determining the content of spent petroleum products in the environment.

All the departmental standard documents must be coordinated with the requirements set by the aforementioned standard and the standard-technical documents.

The State Standard also implements state inspection of the introduction of standards and observance of their requirements. For example, in 1977, the agencies of the State Committee on Standards jointly with the USSR Ministry of Public Health verified observance of the requirements of GOST 2874-73 "Drinking Water" in organizations of the Ministry of Residential and Communal Services of all the union republics. In 1981, target checks were made of organizations of the USSR Ministry of Pulp and Paper Industry and Ministry of the Gas Industry for observance of requirements of GOST 17.1.3.01-76 "Environmental Protection. Hydrosphere. Rules for Protecting Bodies of Water During Log Floating" and GOST 17.1.3.02-77 "Environmental Protection. Hydrosphere. Rules for Protecting Water from Pollution During Drilling and Developing of Offshore Wells for Oil and Gas." This work was done by the territorial agencies of the State Committee on Standards with the participation of representatives from agencies to regulate the use and protect waters of the USSR Ministry of Water Management, Sanitary-Epidemiological Service of the USSR Ministry of Public Health and Agencies of Fish Inspection of the USSR Ministry of Fishing Industry. Operation of scientific research and planning organizations, industrial and production associations of the Ministry of the Gas Industry involved in planning, building and operating offshore drilling platforms, as well as drilling and development of offshore oil and gas wells **was verified**:

--Public design-technological office "Soyuztekmorneftegaz" (currently converted into the All-Union Scientific Research and Planning Institute of Offshore Oil and Gas Drilling);

--Scientific research and planning institute "Gipromorneftegaz" of the all-union production association "Kaspmorneftegazprom";

--The Sakhalin scientific research and planning institute of oil and gas of the all-union production association "Sakhalinmorneftegazprom";

--Production association "Kuban'morneftegazprom";

--Production association "Arktikmorneftegazrazvedka";

--The Sangachaly offshore administration of drilling operations of the all-union production association "Kaspburneftegazprom";

--The Far East offshore oil and gas exploration expedition of deep drilling of the all-union production association "Sakhalinmorneftegazprom."

In verifying the scientific research and planning organizations, special attention was focused on complete accounting in the developed technical plans for construction of offshore drilling platforms and hydro-engineering structures for drilling oil and gas wells of the requirements of GOST 17.1.3.02-77 for protection of water from pollution during drilling and development of offshore oil and gas wells.

In checking the industrial and production associations, special attention was focused on the correspondence to the standards of the general, drilling and other waste water discharged into the sea; fulfillment of the measures stipulated by the plan for preventing pollution of sea water; fulfillment of requirements aimed at preventing accidents which could lead to pollution of the sea water (collection and removal of surplus argillaceous solutions and flushing fluid, collection and elimination of sludge and waste water), as well as other rules which prevent pollution and obstruction of territorial and internal sea water during drilling and development of offshore oil and gas wells.

The Ministry of the Gas Industry in recent years has done specific work to develop and to realize measures for protection of the environment from pollution in the construction and operation of offshore drilling platforms, as well as drilling and development of offshore oil and gas wells.

The scientific research and planning institute "Gipromorneftegaz" of the all-union production association "Kaspmorneftegazprom" developed, and in 1981, introduced a hydrocyclone unit for separating sand from slurry and cleaning it by reagent A-4. A coagulation unit was developed and introduced for purifying the subsaline waters and a unit of electric-thermal treatment of drilling sludge which received a medal at the Leipzig fair in 1981. In 1979 the public design-technological office "Soyuztekmorneftegaz" finished developing measures for protection of the environment which guarantee development of oil and gas wells on the shelf of the Daghestan ASSR. This is an entire set of measures for drilling and extracting oil and gas on offshore water areas which guarantees complete isolation of the work from the environment. In particular, a stationary gravitational reinforced concrete platform of closed type was suggested for drilling and operational work for oil and gas which guarantees complete exclusion of pollution of the sea environment by oil and all wastes of drilling. This completely corresponds to the requirements of GOST 17.1.3.02-77. However, subsequent planned developments for the closed-type platform in the organizations of the Ministry of the Gas Industry have unfortunately not been conducted.

The requirements of GOST 17.1.3.02-77 were taken into consideration in developing the technical plans for construction of offshore exploratory wells in the Sakhalin state scientific-research and planning institute of the all-union production association "Sakhalinmorneftegazprom", and drilling and development of offshore wells in the production association "Kuban'morneftegazprom."

The other associations and organizations have an unfavorable situation regarding observance of GOST 17.1.3.02-77.

The standard requirements are not always taken into consideration in developing the planned documents in the main planning organization of the Ministry of the Gas Industry, the public design-technological office "Soyuzmorteftegaz" and the scientific research and planning institute "Gipromorneftegaz." In

particular, the stages of technical assignment did not take into consideration in the technical-working plans for stationary platforms the equipment, devices and technical resources for outlining and collecting petroleum products from the water surface; the place for removal of the drilling sludge was not indicated, a sludge-dump was not constructed; sometimes a variant for storage of chemical reagents and clay in a pile on an open platform under a canvas is stipulated.

In Murmansktrust "Arktikmornefterazvedka," the Far East MNEGB (not further identified) of the all-union production association "Sakhalinmorneftegazprom" and the Sangachaly offshore administration of drilling operations of the production association "Kaspburneftegazprom", a check revealed individual cases where during drilling and development of offshore wells, the discharged general sewage water was not sufficiently purified; resources were not used for outlining and collecting the petroleum products from the surface, and the drill pumps did not have automatic devices which disengage the pump motors when the established working pressure is exceeded; there were no vessels for collecting oil and bed water in the case of their influx.

The shortcomings noted during the check should be mandatorily eliminated.

Thus, the methods and resources of standardization solve the tasks of regulating economic activity in order to protect the environment from oil and petroleum product pollution.

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EXPERIMENTAL SHIP DESIGNED TO COPE WITH OIL SPILLS

Beijing JIANCHUAN ZHISHI [NAVAL AND MERCHANT SHIPS] in Chinese No 11, 1982
pp 10-12

[Article by Ye Zhi [0673 1807]: "Pollution of the Ocean by Oil Spills and the 'Jing Hai' Vessel"]

[Text] The damage due to pollution of the ocean by oil spills is very serious. To completely oxidize one liter of petroleum by sea water requires the consumption of oxygen in 400,000 liters of sea water. Therefore, oil pollution can cause the polluted ocean area to become deficient in oxygen and this is very destructive to the ocean's biological resources. In addition, petroleum contains toxic substances. When there is a small amount of petroleum in water, lower microorganisms will find it difficult to survive. When there is more petroleum, fish will be harmed. Long periods of petroleum pollution will also cause certain carcinogenic substances to accumulate inside the bodies of fish and shellfish. When people catch the fish and consume them, the human body is directly affected.

Prevent Pollution of the Ocean By Oil Spills

The prevention of massive oil spills from entering the ocean is an important subject in preventing pollution of the ocean. At present, many nations in the world have spent huge sums of money to study and solve this problem. On the one hand, efforts are carried out to improve the structure of ships so that it would be difficult for petroleum to leak from ships. On the other hand, efforts are carried out to study and develop special equipment that can discover in time, measure and collect (or disperse) oil that has already entered the ocean.

In improving the structure of ships, measures have been carried out at present in large oil tankers to build double layer bottoms, install protective side plates on ships and isolate pressure holds to prevent oil from flowing out. At the same time, all ships are equipped with fairly complete navigational instruments and fire prevention and explosion prevention equipment. These measures have reduced the number of accidents such as collisions, running aground, explosions and fires and have greatly reduced the possibility of oil spilling into the ocean.

But, ocean shipping practices show that no matter how tight the preventive measures are, it is impossible to completely eliminate ship accidents that damage the ocean.

There are more and more ocean-going ships, their size has increased and their sailing speed has increased. They all possess potential danger. A shipwreck of a ship carrying a cargo of 10,000 tons or even several 100,000 tons of oil will always seriously pollute the ocean. Therefore, while developing and perfecting ships and navigational safety technology, we must also develop and perfect equipment to treat pollution of the ocean by oil spills so that we can keep the damage done by large scale oil spills to the minimum.

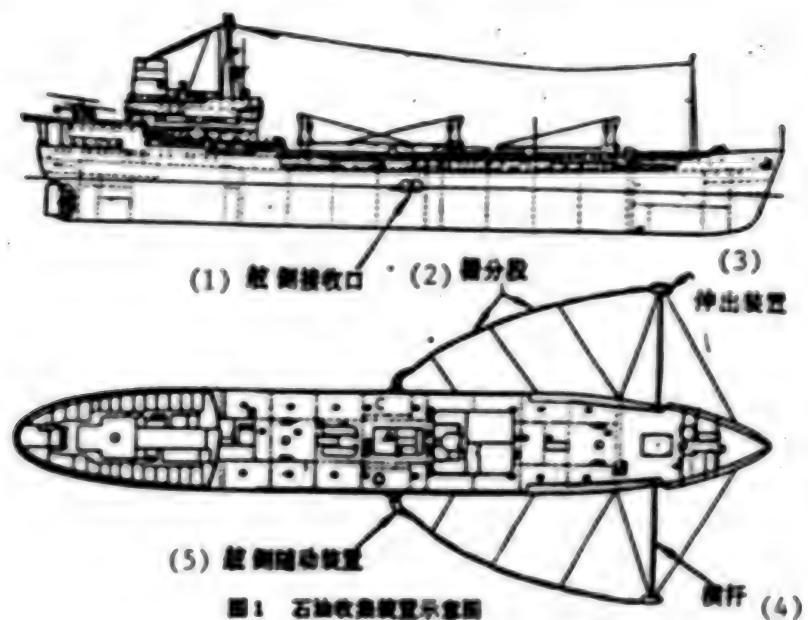
The following situation may emerge in a shipwreck of a large oil tanker: Oil flows out over a long period of time from the damaged hold causing the area of pollution to expand, or the oil flows out rapidly causing serious pollution of local areas in the sea. The oil flowing out from the ship will eventually reach the sea coast forming a thick layer of oil film, or the oil will remain in the open sea forming a broad area covered by a thin oil slick.

If a shipwreck involving an oil tanker occurs, the oil in the damaged hold can be transferred to empty holds or unfilled holds using the oil filling system or oil transport equipment on board the oil tanker itself so as to reduce the amount of the oil spill as much as possible. Or, the oil can be transferred to the oil holds of vessels especially summoned to the rescue. But, under complex shipwreck conditions, it is possible that the oil transport system on board the damaged oil tanker can no longer be used. Therefore, ways must be found to rapidly dispatch a whole set of oil receiving equipment that can operate on its own and well trained personnel to the site near the shipwrecked oil tanker to immediately carry out oil transfer operations.

If an oil spill from a damaged oil tanker is unavoidable, then, most of the oil spilling out should be contained within an area near the shipwrecked oil tanker so that the oil will not expand over a large area in the water.

When the use of mechanical methods cannot control the outflow of oil, and when the oil spill cannot be contained within a local area, ways must be found to recover the oil on the water surface. When recovery becomes difficult, ways must be used to "solidify" the oil on the water surface. The method of solidifying the oil is to spray liquid rubber polymers and chemical hardening agents on the oil slick from an auxiliary vessel or from a helicopter. The liquid rubber polymer can dissolve in the oil and form a kind of rubber "sponge." The hardening agent can greatly reduce the surface tension of the oil slick and cause the oil slick to break into very fine oil drops and gradually disperse in the water. The small oil drops that have been "solidified" will not adhere to rocks and will not cause damage to the environment. After forming small oil drops, the oxidation and decomposition processes of petroleum hasten, and this can also greatly reduce the degree of ocean pollution.

Figure 1. Illustration of oil gathering devices



KEY:

- (1) Receiving hole on ship's side
- (2) Grid section
- (3) Extension device
- (4) Lateral poles
- (5) Follower mechanisms on ship's side

Photo 2. Extension mechanism of the recovery system on ship's side [photo not reproduced]

Drainage Pump

Figure 3. Illustration of the working principle of the receiving sedimentary hold

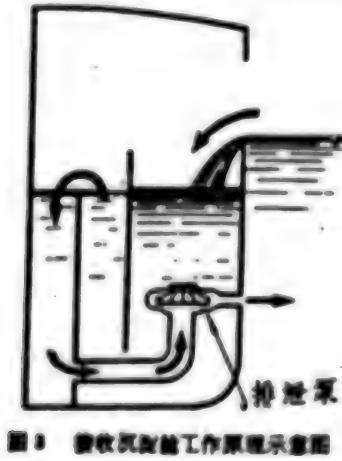


图3. 接收沉降舱工作原理示意图

Figure 4. Different width of interception

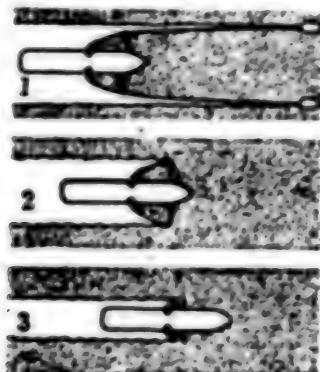


图4 不同的截流宽度

- (1) 截流宽度 250米
- (2) 截流宽度 60米
- (3) 截流宽度 24米

KEY: (1) Intercepting width of 250 meters
(2) Intercepting width of 60 meters
(3) Intercepting width of 24 meters

Figure 5. Spraying hardening agent on oil slick [photo not reproduced]

But, the decision to use the solidification method is determined by the ecological situation in each specific water region. At the same time, we must also consider the fact that the scattered petroleum and chemical agents still remain in the water. And in the long range view, they will still affect the plant colonies and animal colonies in the ocean. Therefore, the use of chemical agents to disperse oil on the ocean surface requires approval by the inspection department of the ocean region before it can proceed.

The situation in many oil spills from ships shows that if the oil is allowed to spread over a large expanse of water and is not controlled, then, all efforts to recover the oil afterwards will be useless.

Because shipwrecks vary in situation, therefore, we must correspondingly develop various types of special equipment needed to limit and eliminate oil spills and to establish related operational and technical regulations. In doing so, we have gradually formed the idea of building a special multi-purpose vessel to protect the ocean. This vessel can complete the following operations in the open sea. It can intercept oil flowing from a shipwrecked vessel. It can recover oil in the concentrated area of the ocean polluted by the oil spill (Diagram 1). It can use solidifying agents to treat the large area of the ocean covered by an oil slick, etc. Of course, this vessel should be technically rational and economically worthwhile.

A Multi-purpose Vessel to Protect the Ocean

Recently, concerned departments in the Soviet Union utilized an existing 10,000-ton class oil tanker and rebuilt it into an experimental multi-purpose ocean protecting vessel christened the "Jiang Hai" (Title page photograph). Because the power, the deck area and the capacity of the hold of the original ship were all sufficient, therefore, rebuilding work mainly involved adding an oil recovery system (Diagram 2) on the ship's side to recover oil on the water surface and corresponding hoisting equipment.

The "Jing Hai" vessel can be used to eliminate massive oil spills from shipwrecked vessels in the open sea. It can also be used to clean up oil holds, fuel oil holds, lubricating oil holds and engine rooms of various other types of vessels. It can also be used to receive oil containing waste water and residual oil on board other vessels. Sometimes, it also serves as a training vessel to train crews and as an experimental ship to conduct tests and analysis.

The "Jing Hai" has a total length of 149 meters, a hull width of 18.2 meters and a draft of 8.4 meters. When traveling to an operating site, its cruising speed is 11 knots and its range is 7,500 nautical miles. When performing oil recovery operations, its cruising speed is 2 knots. The ship can recover 400 cubic meters/hour of oil from an oil slick one millimeter thick on the water surface when the wind is less than two on the wind scale. The capacity of the oil hold of the ship is 7,000 cubic meters.

The oil recovery system on the ship's side has a receiving sedimentation tank (Diagram 3). The bottom of the receiving sedimentation tank is equipped with two drainage pumps with a total power of 16,000 cubic meters/hour. The interior of the tank has an overflow device, a directional guidance device and a controlling device. The interior of the tank is divided into an oil sedimentation area and a condensation area. The recovery system has an extension mechanism that can intercept oil on the water surface within a wide range. The oil and water intercepted by the extension mechanism are drawn to the side of the ship to the receiving hole. The extension mechanism can be regulated according to the force of the wind, the thickness of the oil slick, the speed of the vessel and such variable factors, and its can move along with the waves. When the height of the waves does not surpass 1.5 meters, the extension mechanism can effectively intercept the oil. When the weather worsens or when the vessel is cruising, the extension mechanism can be retrieved by a crane and placed on deck. At this time, the receiving hold on the ship's side is plugged by a tight guard plate.

After the sea water with the oil slick intercepted by the extension mechanism enters the receiving hold on the ship's side and flows into the receiving and sedimentation tank, the water will sink to the bottom and the oil will accumulate in an upper layer because of the difference in the specific gravities of oil and water. At this time, the water pump pumps out the water at the bottom of the tank into the sea causing the water level of the oil and water inside the tank to become lower relative to the water level outside the ship's side and forming a water level difference. The receiving

hole on the ship's side can thus continue to take in oil and water from the outside of the ship's side. In this way, the oil layer in the upper level of the receiving tank becomes thicker. When the oil layer reaches a sufficient thickness for the oil pump to operate effectively, the electrical sensor will emit a signal, and the oil pump will gather the oil and pump it into the oil hold on board. In this way, by gradual replacement, nearly 7,000 cubic meters of oil can be gathered. Because the oil and water have already been separated and settled for a long period, the oil gathered in this way has a relatively low water content.

The "Jing Hai" vessel utilizes different operating techniques for different oil spill situations (Diagram 4). It can operate at different widths of interception. If a massive oil spill from a shipwrecked oil tanker has to be stopped, the "Jing Hai" vessel can close in on the shipwrecked vessel from the down wind side, start the oil gathering system at the ship's side, and expand the two auxiliary grids to limit the oil flow. Two operating boats can fix the auxiliary grids at fixed positions. At this time, the width of interception can reach 250 meters. When using the extension mechanism on the ship's side, the width of interception is 60 meters. When using a portion of the extension mechanism on the ship's side, the width of interception is 24 meters.

The "Jing Hai" vessel also carries a petrochemical dispersion system. Through this system, hardening agents can be sprayed onto the oil slick (Diagram 5) to disperse the oil slick. The spout that sprays the hardening agent is installed on a lateral pole on the ship's side. The two ends of the lateral pole are respectively hinged on the hull and a buoy. Therefore, when the ship sways, the distance between the spout and the water surface remains almost unchanged. In this way, the hardening agent can be sprayed very evenly. The hardening agent is contained in a liquid hold of 140 cubic meters in volume. A centrifugal pump pumps the chemical into a mixer. In the mixer, the hardening agent is mixed with water according to a fixed ratio. Then the mixture is sent to the spout. The "Jing Hai" vessel can treat a strip of oil slick 60 meters wide. The hardening agent carried on board can disperse nearly 1,000 tons of spilled oil on the ocean surface.

With the help of other assisting vessels, the "Jing Hai" vessel can sail far away from port for extended operations to eliminate oil spills. Besides directly eliminating oil spills, the "Jing Hai" also serves as a mother ship for the other vessels participating in the mission. It can lead and coordinate the other ships to complete the task. When it is not engaged in cleaning up oil spills, the "Jing Hai" can utilize its oil pump, water pump, piping, storage containers and power devices to wash and clean various models and types of ships. This is also very effective in reducing pollution of the ocean by these vessels.

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BRIEFS

EARTHQUAKE IN TAJIKISTAN--Dushanbe [no date given]--The first earthquake of 1983 was recorded in Tajikistan at 1310 local time on 3 January. Its epicenter was 30 km southeast of Dushanbe near the village of Sultanabad, Leninskiy Rayon. Force 3 underground tremors on the 12-point scale were recorded in Sultanabad, Dushanbe and other population centers in the Gissar Valley. There were no casualties or damage. [By V. Surkov] [Text] [PM201059 Moscow IZVESTIYA in Russian 4 Jan 83 Morning Edition p 6]

MOLDAVIAN EARTHQUAKE--Kishinev, 25 Jan (TASS)--At 10 hours 35 minutes, Moscow time today, the "Kishinev" seismic station registered an earthquake whose force was up to five in the capital of Soviet Moldavia and up to 5.5 in the southwest of the republic (on a 12 point scale). Anatoliy Drumya, the director of the Geophysics and Geology Institute of the Academy of Sciences of Moldavia, told TASS that the epicentre of the quake was 180-200 kilometres southwest of Kishinev. There were no victims or destructions on Moldavian territory. [Text] [LD251126 Moscow TASS in English 1110 GMT 25 Jan 83]

DEVICE DETECTS OCEAN OIL SLICKS--Moscow, 20 Jan--Soviet oceanologists have designed a device capable of detecting an oil slick on the ocean surface at any time. A special fluorescent sensor, mounted on a ship, irradiates ultraviolet rays within a fixed spectral range. The slick begins to fluoresce. Absorbents, developed by the Institute of Oceanology, are able to take up oil within a few minutes. A slick, thousands of square metres in area, for example, can be removed from the surface in 15 minutes. Experts estimate that up to six million tons of oil are spilled annually into water during shipwrecks, offshore oil production and transportation. Chemicals, sprayed on the oil slick, absorb it without polluting the ocean. A vessel may then collect froth with water that then separate it using special chemicals. Testing of the device and absorbents was carried out in several oceans, specifically during the expedition of the research vessel "Arkademik Kurchatov." [Text] [TASS headline: "Conservation Efforts"] [Moscow TASS in English 20 Jan 83]

CSO: 5000/45

GOVERNMENT POLICY INEFFECTIVE IN BARCELONA AIR POLLUTION

Barcelona LA VANGUARDIA in Spanish 4 Jan 83 p 14

[Article by Jordi Bordas: "Warning: The Pollution Is Increasing"]

[Text] The "weather men" assure us that there will be no change in the next few days; therefore, increased pollution--which has been at a high level for several weeks--will become a reality. As a result, Barcelona residents who suffer from respiratory problems will see their ailments become worse, especially at nighttime when the atmospheric environment is charged to a greater extent.

The prevailing climatological conditions in the atmosphere of Barcelona and nearby localities are conducive to an increase in environmental pollution. For some weeks, high pressures have been affecting all of Spain and, consequently, Catalonia and Barcelona. Calm winds and the thermal inversion produced during the night are preventing the atmospheric pollution created by traffic, industries and heating facilities from rising to the upper strata and dissipating. To all that we must add what the experts call "thermal inversion," that is, the temperature at ground level is lower than that recorded at a greater height. This phenomenon occurs especially at night. For example, it is colder at a Catalonian market place than at the summit of the Tibidabo. In short, all these characteristics--very stable weather, calm winds and nocturnal thermal inversion--prevent the aerial filth from moving to other places and rising to the highest strata of the atmosphere.

The Municipal Office of Atmospheric Environment [OMMA] kept a close watch on the pollution levels last week. Although at no time did the average equal the minimum required to implement the so-called plan of action against atmospheric pollution, at some parts of the city the measurements bordered on those minimums. For example, on Monday, 27 December, the density of the fumes was not excessive, which is logical when we consider that, generally speaking, on weekends industrial activity is at a standstill and traffic within the city is also decreased. However, the levels began to increase gradually as the week advanced. On Friday, the data obtained by the group who measure atmospheric pollution indicated that the concentration of fumes was reaching 190 micrograms per cubic meter and that certain locked-in areas of Barcelona were

exceeding that average. These exceptions applied particularly to the intersections of Balmes Street and Gran Via and Lesseps Square, that is, areas of high traffic intensity.

City Council Keeping a Close Watch

Although the atmosphere again improved this past weekend, the pollution levels again rose yesterday. "A trend," the OMMA confirmed to this publication, "which will continue for the next few days, sometimes lower, sometimes higher. If this is the case and if the minimum levels are exceeded, requiring the implementation of the antipollution plan, the City Council will undoubtedly act." As will be remembered, on various occasions the city of Barcelona carried out mock pollution plans which, good or bad, provided an opportunity to test the effectiveness of the antipollution measures. Basically, the plan obliges certain companies to replace their usual fuels with others which are cleaner and less polluting. The same plan also permits changes in the traffic pattern and a review of heating facilities and other installations which are harmful to the atmospheric environment. However, as the OMMA also pointed out, "this is not the real solution."

And it is not the real solution because, among other things, this is a phenomenon which, like the swallows in spring, is repeated periodically. Inasmuch as the atmosphere contains the above-mentioned characteristics, we have good cause to tremble. The heart is again troubled and the lungs more irritated and sensitive.

Hope in the Government

At a meeting held recently in Madrid, representatives of the Barcelona City Council suggested that the government lower the minimum levels in order to implement measures against pollution. "For the moment, they have said nothing officially, but, more than ever, we hope that this time they will give the matter serious consideration. Barcelona, Badalona and Aviles outlines their respective plans. It was also explained that it would be very convenient to lower the legal limits, which would make it possible to declare the atmosphere polluted in those cities where the environment is heavily charged. As an example, we can cite that in Nordic countries, when the fume level reaches 70 micrograms per cubic meter, antipollution measures are implemented. Here, the level has to reach 400."

Nevertheless, in the opinion of city experts in the combat against pollution and in that of experts in meteorology, what is truly alarming is that there are no signs of change over the short term. "The forecasts for today, tomorrow and the next few days," spokesmen of the Meteorological Center in Barcelona told LA VANGUARDIA, "do not enable us to be very optimistic. For the moment, the atmosphere appears very stable and, over the immediate range, there are no indications which would justify a prediction that this will change and that the atmosphere will become cleaner."

No Increase in the Number of Patients

Until now, neither the hospitals nor doctors have reported any appreciable increase in the number of patients afflicted with respiratory problems. "As always happens in these cases," the doctors consulted by this publication indicated, "the first to resort to consultations and hospital departments are asthmatics and individuals afflicted with respiratory insufficiency. That is to say, those most sensitive to these atmospheric changes. Sensations of shortness of breath are much more acute than in normal circumstances."

People who do not suffer from these afflictions may be affected by eye irritations, smarting sensations in the throat and tickling in the nostrils. "Only in very critical cases of environmental pollution," the doctors add, "do asthmatic, bronchial or respiratory problems manage to affect these people. But, in this case, we are speaking of critical periods of atmospheric pollution."

Waiting for Wind

From Montjuic or Tibidabo it is quite apparent that areas of Barcelona are the ones which are suffering most from this problem. Yesterday, a "black cloud" extended over Pueblo Nuevo, Sant Adria de Besos and Badalona. The rest of Barcelona, although lightly fume-laden, had a much cleaner atmosphere. This aspect varies completely during the night. Beginning at 2300 hours and lasting until mid-morning, fume-laden atmosphere is quite obvious in any street in the city. For this reason, as already stated, the critical periods will particularly occur at night.

It is to be hoped that wind or rain will soon come so that the atmosphere will clear up and Barcelona will regain its customary aspect: that is, a city with not too clean streets--despite efforts being made by the City Council--and with an atmosphere normally fume-laden, two characteristics which are too common not to require, once and for all, a definite solution. This request is being repeated with the same frequency, as a minimum, as that at which the critical periods of atmospheric pollution are occurring.

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CSO: 5000/2536

BRIEFS

CATALONIAN ECOLOGISTS PLAN CANDIDACY--Gerona--During a meeting held in La Bisbal, the Catalonian Ecological Movement studied the possibility of presenting candidates in the next municipal elections in Barcelona and other Catalonian cities. Although in its statutes the Catalonian Ecological Movement describes itself as an entirely apolitical civic organization and it is expressly stated that its members may not belong to any political party, at the La Bisbal meeting they considered the possibility of supporting ecology candidates in the next municipal elections in Barcelona and other cities which are sensitive to ecological matters, such as Olot and Cubellas. The "green" candidates would be technicians and would have the support of a bloc of voters for their candidacy. This civic movement, which was legally registered in May 1982 by the General Directorate of Associations of the Catalonian legislative assembly, is governed at present by a collective management committee. Article by J.B. / Text / Madrid EL PAIS in Spanish
10 Jan 83 p 13 / 9204

PAMPLONA STIFFENS POLLUTION CONTROLS--Carmelo C. Ridruejo, Pamplona--According to an extensive report by the Health Department of the municipal government of Pamplona on the activities for this year, the control of water quality and air pollution in Pamplona will be stepped up notably during 1983. The analysis of water in swimming pools, aqueducts, rivers and fountains will be one of the priority objectives of the activities of that department. This 1983 program of activities contemplates an exhaustive study of water quality in Pamplona and its district, which receive their water supply from the spring in Arteta-Mendiollori and the Erugui reservoir. The water from both of these sources will be analyzed daily. Also, although not as frequently, tests will be made of the physical and sanitary state of the 195 public fountains in the city of Pamplona. This stepped-up inspection program of water quality also contemplates the control of water flowing into and out of the three rivers which traverse Pamplona, the Arga, the Sadar and the Elor, whereby the composition of wastes dumped into these rivers by industries located in the municipality will be analyzed. These controls and analyses have been planned in order to ascertain the composition of the waste materials as well as the purification processes used on them. Public health inspection of swimming pool water, which had such good results last year, will also be continued as it has been for the past several years. Text / Madrid EL PAIS in Spanish
10 Jan 83 p 13 / 9204

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